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LOUISIANA BUSINESS REVIEW

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A New Era for Banking

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LETTER FROM THE EDITORIAL BOARD

Twenty years ago, a college senior seeking advice from his favorite professor was likely to be told that if he wanted a secure career with impressive titles but without much excitement or pay, he should select banking. Within the past decade, this traditional view of banking has been altered drastically, and those entering the industry would be well advised to expect more than a modicum of excitement. Not only are inflation and volatile interest rates affecting the way banks do business, but the very rules of the game by which banks, and other financial institutions, have played for the past four decades are being rewritten. Two decades ago, each financial institution had its own generally well-defined niche among the financial intermediaries. Today the distinctions between banks, savings and loan associations, credit unions, credit card companies and money market "near-banks" are so blurred that it is difficult to write a meaningful description of each. Some of these changes have been initiated by banks themselves over the last fifteen years as they have tried to expand their markets while legally avoiding regulations. In some states, banks have formed bank holding companies in order to provide non-banking services, such as computer and management consulting, real estate and insurance, or to expand into broader geographical markets.

Although banks remain subject to various regulations, many of the regulations regarding competition are being altered or eliminated. During the next decade, banks are going to be different "creatures" than we know them to be today. Spurred by technological developments in electronics, deregulation and their own imaginative responses to competition, banks will provide a plethora of consumer and business services in addition to their traditional functions of accepting deposits and making loans.

In 1980, there were about 14,900 banks and 39,000 branches in the United States. Approximately 270 of these banks and 800 of the branches were located in Louisiana. Between 1970 and 1980 only 39 new banks were established in Louisiana, but the number of branches more than doubled from the 393 existing in 1970. Even more significant was the increase in total bank deposits from $7.5 billion in 1970 to $21 billion in 1980. Among the 500 largest banks in the United States, 17 are located in Louisiana. Furthermore, Louisiana banks provided employment to more than 24,000 workers in 1980, which is almost twice as many as the 13,000 workers employed in 1970. Bank employment in the state is expected to increase to a level of 35,000-40,000 by 1990.

Deregulation and the increasing competition among banks, as well as between banks and other financial institutions, have raised questions and some concern about the financial viability of banks. David M. Cordell and James W. Wansley, in "A Profitability Analysis of Louisiana Banks" examine the profitability of Louisiana banks in comparison with the profitability of almost 2000 other banks in the southeastern United States. Although the authors found that the intensified competition and the changing regulatory environment of the 1970s reduced the profit margins of Louisiana banks during the latter part of the decade, they also found that bank managers reacted to this situation by shifting their loan portfolios into higher yielding assets. Based on the authors' analytical framework, it is evident that Louisiana bankers did a good job. Louisiana banks had average returns on assets and equity which were higher than those of banks in other southeastern states.

Although the regulatory climate is changing, banking remains a heavily regulated industry. Many of these regulations pertain to the technical, financial, and legal aspects of banking, but the more important and controversial ones govern the ability of banks to compete in broader geographical areas and to provide non-traditional banking services.

William Lane in "The Regulation of Commercial Banking in Louisiana" briefly discusses bank holding companies as a legal way for banks to avoid some of these regulations, and examines the advantages and disadvantages of bank membership in the Federal Reserve System. Thomas L. Beard summarizes the current status of government regulations relevant to broader area banking, examines the extent of branch banking in Louisiana, and presents a thorough discussion of the economic arguments and empirical evidence relating to wider branching authority in his article "Should Geographic Restrictions on Branch Banking Be Removed?"

LSU has played a significant role in providing educational opportunities for students and practitioners interested in banking. Dan Bailey, Director of Continuing Education in the College of Business Administration, has written a short article describing LSU's various programs of continuing education in banking.

One important part of Reaganomics is the package of tax incentives provided in the Economic Recovery Tax Act of 1981. Since we thought many of our readers might be interested in some of the new specific tax changes pertaining to businesses, we asked Walter H. Bass, a C.P.A. and tax expert, to write a summary of these for the *LBR*. His special report can be found on pages 24-25 .

—The Editorial Board

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LOUISIANA BUSINESS REVIEW

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Pressures for relaxing legal restrictions on both intrastate and interstate branch banking have intensified in recent years. The available empirical evidence suggests several important advantages of wider branching authority, especially in a state such as Louisiana which has limited branch banking and prohibits multi-bank holding companies. Yet these advantages do not seem overwhelming in magnitude, and many significant questions remain unanswered. Given these uncertainties, the more prudent course is a gradual and cautious relaxation of existing barriers to geographic expansion.

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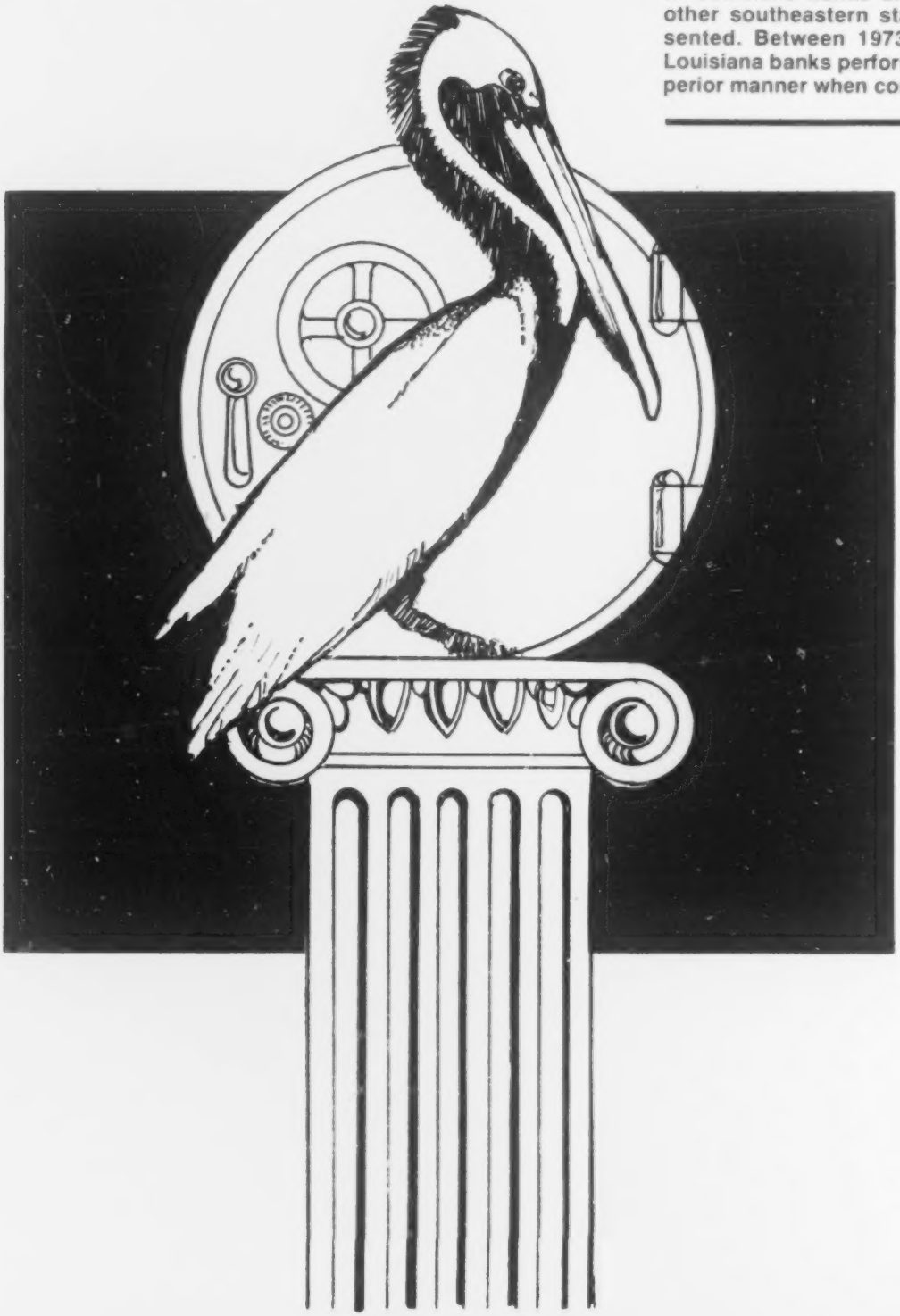
A Profitability Analysis of Louisiana Banks

A simple framework (the Du Pont system) that allows assessment of the changing profitability position of Louisiana banks and banks of other southeastern states is presented. Between 1973 and 1980, Louisiana banks performed in a superior manner when compared with



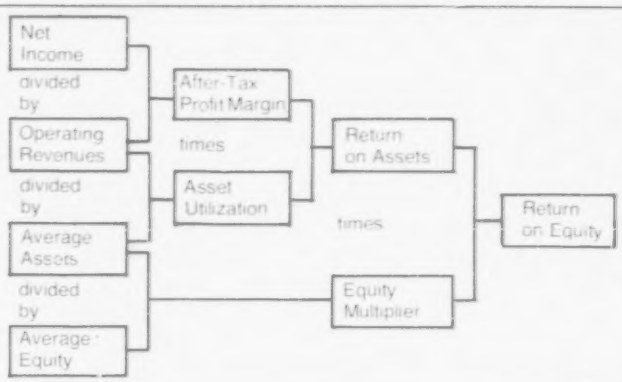
other southeastern states. Although the intensified competition and changing regulatory conditions of the 1970s reduced bank profit margins, asset utilization increased resulting in higher returns on assets and equity. Louisiana banks, on the whole, appear to be well-positioned to meet the decade of the 1980s[1].

During the 1970s the banking industry experienced intensified competition, changing regulatory conditions and constant interest rate fluctuations. These and other outside factors, such as the lack of significant economic growth during the period, have caused increased pressure on bank profitability. This uncertain regulatory and economic climate has continued into the 1980s and shows no sign of abatement. Bank officials and the general public in Louisiana are concerned about the continued viability of the commercial banking industry as a whole[2] as well as the financial well-being of individual Louisiana banks.

This article presents a simplified format that allows one to assess the changing profitability position of banks in Louisiana and assists in evaluating the current financial posture of these banks.[3] A performance profile is presented for Louisiana banks, both in the aggregate and by five size categories (measured by the dollar value of total assets). Explicit incorporation of size in any bank profitability analysis is important since a bank's performance is influenced by its size. For example, because of economies and diseconomies of scale, a bank whose total assets are in the range of $50-100 million tends to have a higher return on assets than do the smallest or largest banks. Thus, comparing an individual bank to other banks in the same size category tends to give a more accurate representation of true relative performance.[4]

Secondly, bank profitability in Louisiana is compared[5] to that of a group of other southeastern states.[6] This comparison allows additional insight into (1) the performance of Louisiana banks relative to other banks in the same geographic region, and (2) the relative success of Louisiana banks in coping with the changing regulatory and economic climate.

Figure 1. The Du Pont System Performance Indicators



THE DU PONT SYSTEM

A particularly useful technique for the evaluation of business performance is the Du Pont system of ratio analysis. This system, which was developed by the E. I. Du Pont de Nemours Company over sixty years ago for management and internal control, is widely used by businesses of all sizes. The Du Pont system is based on an analysis of a composite of performance measures derived from data on an individual bank's net (after-tax) income, operating revenues, average assets, and average stockholders' equity. These performance measures for an individual organization can be used to evaluate a particular bank's performance vis-à-vis other banks within different markets.

Performance Measures

The ultimate performance measure of this system is the return on equity ratio, which relates the profitability of the bank to the book value of shareholders' equity. As Figure 1 shows, in the Du Pont system return on equity is equal to the product of the return on assets ratio, which measures the profitability of the bank relative to the size of the asset portfolio, and the equity multiplier, which gauges the financial leverage of the bank as the quotient of average assets and average shareholders' equity. The return on assets measure in the Du Pont system is represented by the product of the after-tax profit margin and the asset utilization ratio. The after-tax profit margin indicates the level of management's operating efficiency by measuring the ability to turn operating revenues into profits, while the asset utilization ratio measures management's success in generating operating revenues relative to the size of the asset portfolio.

Profitability Improvement Strategy

As a benchmark in setting its goals, a bank can compare its performance as indicated by its return on equity with that of an appropriate peer group, such as other banks of similar size in the same geographical region. Since the bank's return on equity depends upon both its return on assets and equity multiplier, each of these two ratios should be examined for possible improvement. The bank may be limited in its ability to increase its leverage via the equity multiplier, however. For example, by raising the level of dividends paid to stockholders, the bank can increase its equity multiplier, but to do so constrains bank growth. In addition, raising the equity multiplier by increasing deposits may be limited by market conditions. To improve its return on assets, the bank must review both of its component ratios, the after-tax profit margin and the asset utilization ratio, to determine whether improvement is possible.

Application of the Du Pont Technique

As an example of the usefulness of the Du Pont system, consider the 1980 data for Last National Bank, a hypothetical medium-sized bank in Louisiana.

TABLE 1

Performance Data for Last National Bank, 1980

Assets	$75,000,000
Return on Equity	17.18 percent
Equity Multiplier	13.85 percent
Return on Assets	1.24 percent
Asset Utilization Ratio	.0983 percent
After-Tax Profit Margin	12.62 percent

presented in Table 1. As a basis of comparison, Table 2 presents the average Du Pont bank performance ratios for Louisiana and a group of other southeastern states (Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina and Tennessee) for 1980. The banks represented in Table 2 are grouped into five categories based on their size as measured in millions of dollars in assets, including the ranges $0-25, $25-50, $50-100, $100-300, and over $300 million. Within each size category, three ratios are presented for both Louisiana and the other southeastern states. The top ratio is the seventy-fifth percentile; only one-fourth of the banks in the category exceed this ratio. The middle ratio represents the fiftieth percentile, or median; half the banks have a ratio exceeding this value and half fall below it. The bottom ratio represents the twenty-fifth percentile, below which fall only one-fourth of the banks for the category. Using these three percentiles as dividing points, bank performance can be classified as high, above average, below average or low, and emphasis can be placed upon correcting specific deficiencies.

Note from Table 1 that Last National Bank's return on equity falls in the below average range for Louisiana banks in the $50-100 million category. While its equity multiplier is slightly above the median, its return on assets is just above the twenty-fifth percentile for the state. Further comparison reveals that Last National Bank's after-tax profit margin is above average, but that the asset utilization ratio can be classified as low for Louisiana. A similar performance analysis could be carried out for Last National in comparison with other medium-sized banks in the Southeast, using the data in Tables 1 and 2.

In this case Last National should concentrate its efforts on improving its asset utilization ratio, which is holding down both its return on assets and return on equity. Since the asset utilization ratio is the quotient of the bank's operating revenues and average assets, one of the following two situations must occur for Last National Bank's asset utilization to improve. Either operating revenues must rise more than proportionately in relation to assets, or assets must fall more than proportionately in relation to operating revenues. In the first case, Last National's management could raise the bank's operating revenues by concentrating on higher yielding assets. This would raise the asset utilization ratio, and, as long as net income rises at

TABLE 2

1980 Bank Performance Rankings[a] for Louisiana and Southeastern States[b]

Assets (Millions of dollars)	Number of Banks		After-Tax Profit Margin (percent)		Asset Utilization		Return on Assets (percent)		Equity Multiplier		Return on Equity (percent)	
(1)	Louisiana (2)	Southeast (3)	Louisiana (4)	Southeast (5)	Louisiana (6)	Southeast (7)	Louisiana (8)	Southeast (9)	Louisiana (10)	Southeast (11)	Louisiana (12)	Southeast (13)
less than 25	72	900	15.13 12.64 9.42	14.98 11.56 8.06	.120 .112 .102	.117 .109 .101	1.77 1.39 1.02	1.64 1.26 .87	13.61 11.77 9.86	12.83 10.99 9.15	19.61 15.32 11.54	17.20 13.75 9.65
25-50	82	532	15.90 12.24 9.03	14.66 11.81 8.94	.118 .109 .102	.111 .106 .100	1.71 1.33 1.02	1.56 1.23 .92	14.12 12.51 11.21	13.84 12.07 10.29	20.44 17.51 13.02	17.71 14.49 11.55
50-100	62	296	16.12 12.43 11.14	14.13 11.74 9.47	.117 .109 .104	.111 .104 .099	1.77 1.40 1.14	1.52 1.22 1.00	15.09 13.57 12.24	14.26 12.76 11.14	21.63 19.00 15.01	18.33 15.34 12.50
100-300	27	167	14.16 12.53 9.82	13.23 10.62 8.53	.110 .106 .100	.110 .104 .097	1.47 1.35 1.00	1.39 1.11 0.87	15.24 14.11 11.80	15.00 13.52 11.87	20.86 16.83 15.00	17.99 14.76 12.21
greater than 300	18	78	11.61 8.93 7.12	11.14 9.31 7.26	.113 .110 .102	.112 .107 .101	1.20 1.03 0.77	1.14 0.94 0.77	16.30 15.06 13.13	17.30 15.36 13.65	16.44 13.87 12.93	16.03 14.24 12.79
All Banks	261	1973	15.20 12.32 9.09	14.42 11.43 8.54	.117 .109 .103	.114 .107 .100	1.66 1.34 1.02	1.55 1.21 0.89	14.58 12.97 11.32	13.82 12.02 10.12	20.43 16.64 13.15	17.56 14.33 10.99

[a]The values in column (4) - (13) are the seventy-fifth percentile, the median, and the twenty-fifth percentile for each category.
[b]Included in the southeastern group are Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina and Tennessee.
Source: The ratios reported in this table were derived from data available in the Board of Governors of the Federal Reserve System, *Call and Income Subscription Service* (magnetic tapes), 1980.

TABLE 3

Louisiana Bank Performance, 1973, 1976, 1980*

Assets (Millions of dollars)	Number of Banks			After-Tax Profit Margin (percent)			Asset Utilization			Return on Assets (percent)			Equity Multiplier			Return on Equity (percent)		
	1973	1976	1980	1973	1976	1980	1973	1976	1980	1973	1976	1980	1973	1976	1980	1973	1976	1980
less than 25	165	131	72	15.81	13.31	12.56	.070	.079	.112	1.15	1.05	1.39	15.00	13.25	11.77	16.87	13.86	15.33
25-50	42	71	82	13.96	15.19	12.24	.070	.077	.109	0.93	1.14	1.33	15.89	14.60	12.51	14.48	16.92	17.46
50-100	13	24	62	13.24	12.14	12.43	.069	.077	.109	0.97	0.96	1.40	16.01	14.58	13.57	14.58	15.40	18.97
100-300	16	17	27	11.23	12.25	12.50	.068	.073	.106	0.77	0.81	1.35	13.73	13.76	14.11	11.63	13.62	16.83
greater than 300	8	11	18	10.09	11.82	8.90	.062	.063	.110	0.73	0.89	1.03	15.27	14.47	15.06	11.38	11.02	13.88
All Banks	244	254	261	14.71	13.78	12.33	.070	.077	.109	1.06	1.05	1.34	15.20	14.05	12.97	15.06	14.32	16.64

*Median values for each ratio, year and size classification.

Source: Same as for Table 2, 1973-1980.

least proportionately to operating revenues, the bank's after-tax profit margin would not deteriorate. As a result, both the bank's return on assets and return on equity would improve. The latter course of action is not likely since few bank managers would intentionally allow their firm's asset level to shrink. Furthermore, to do so would also reduce leverage as reflected through the equity multiplier. Thus, by using Du Pont analysis in the above example, management can identify specific problem areas and focus attention on correcting those deficiencies.

LOUISIANA VIS-A-VIS OTHER SOUTHEASTERN STATES

While it is beneficial to use Du Pont analysis to evaluate a single bank as compared with other banks within a particular market, it is also helpful to compare banks in one market with banks in other similar markets at a specific point in time. As noted above, Table 2 includes 1980 bank data not only for Louisiana, but also for a group of other southeastern states. A comparison of the data for all Louisiana banks with the southeastern group in the bottom row of Table 2 reveals that Louisiana banks exceed their southeastern counterparts at the seventy-fifth, fiftieth, and twenty-fifth percentile marks for each of the five ratios. Particularly interesting is the comparison of the return on equity for which the median Louisiana bank is over two percentage points higher than the median southeastern bank. Since return on equity is the most widely accepted performance criterion, this suggests that Louisiana banks were more successful than their southeastern neighbors in dealing with the vagaries of the 1980 economic situation.

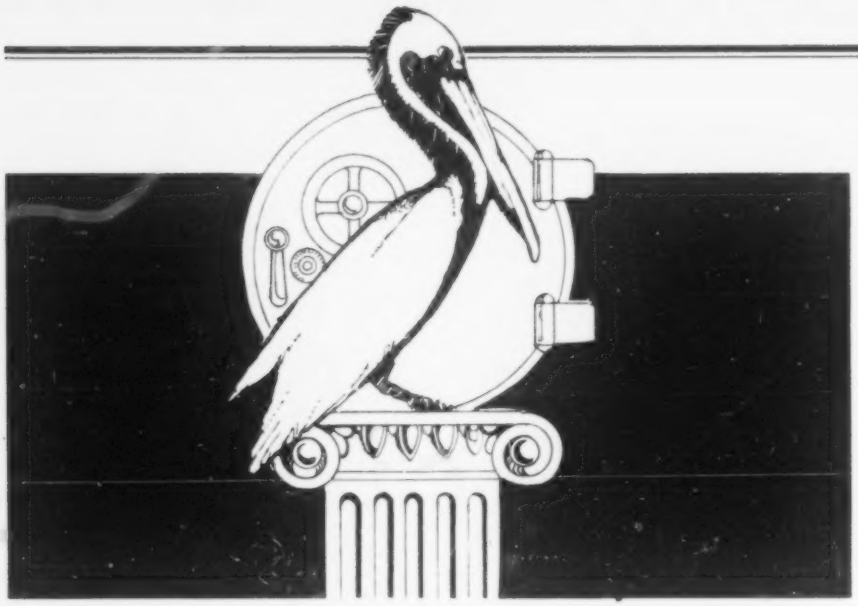
The pattern of superior performance of Louisiana's banks is even clearer when bank performance ratios within the three smallest size groupings (up to $100 million in assets) in Table 2 are compared. As with the "All Banks" totals, the seventy-fifth, fiftieth, and twenty-fifth percentiles for Louisiana banks exceed those for the southeastern banks in each category. For the fourth largest size category (the $100-300 million range), Louisiana banks out-perform those of the southeastern group for all rankings of every Du Pont indicator except for the small difference in the equity multiplier at the twenty-fifth percentile ranking.

However, Louisiana seems to lose its edge vis-à-vis these other southeastern states for banks whose assets exceed $300 million. In this bank size category, the Louisiana banks have a lower after-tax profit margin for both the median and twenty-fifth percentiles. In addition, the equity multipliers of the southeastern banks are greater than those of the Louisiana banks for all three percentile values. This lower level of leverage for the Louisiana group is reflected by the lower median return on equity for banks in the largest size category when compared to the other southeastern banks.

Thus, while Louisiana banks compare quite favorably with the southeastern regional group, there seems to be some evidence that the large Louisiana banks lag somewhat behind in their return on equity due to their lower after-tax profit margin and equity multiplier values. Still, in this group as in all others, the return on assets for each percentile is superior, suggesting relatively well managed asset portfolios. Further, the same relatively low equity multipliers which hold down the return on equity ratios also suggest a lower risk level. Whether the potential increase in return on equity justifies the effort and risk of increasing leverage, if indeed market and regulatory conditions allow it, is a matter for each bank to consider.

LOUISIANA BANK PERFORMANCE

The Louisiana banking industry sustained substantial growth during the 1970s. Aggregate total assets of Louisiana banks increased from $11.6 billion in 1973 to $24.9 billion in 1980, a compound growth rate of 11.5 percent. This growth rate compares favorably with the corresponding 8.7 percent increase in bank assets for other southeastern states. Average total assets per bank in Louisiana increased from $47.6 million in 1973 to $95.6 million in 1980. This increase can be seen in Table 3 by the dramatic drop over time in the number of banks with total assets less than $25 million. In 1973, almost 85 percent of Louisiana banks had total assets less than $50 million, and only three percent had more than $300 million. By 1980, the percentage of small ($50 million or less) banks had dropped



to 59 percent, and almost seven percent (18 banks) were larger than $300 million.

Table 3 displays a summary of bank performance measures by size of bank for the years 1973, 1976 and 1980. By comparing the values of a particular bank performance indicator across time, it is possible to assess the changing posture of Louisiana banks during the 1970s. For example, the after-tax profit margin for the "All Banks" category declined by 16 percent, falling from 14.71 percent in 1973 to 12.33 percent in 1980. Banks whose assets were between $100-300 million, however, did not follow this trend. Their average after-tax profit margin during this period increased from 11.23 to 12.50 percent. Offsetting the overall decline in profit margin was the consistent increase in asset utilization for all banks across all size groups. Much of the increase resulted from an overall higher level of interest rates during the late 1970s and 1980. As the prime rate (the interest rate banks charge their largest and most credit-worthy customers) increased during this period, operating revenues increased, resulting in larger asset utilization ratios. In addition, bank managers reacted to declining profit margins by shifting their loan portfolios into higher yielding assets. The increase in asset utilization more than compensated for the declining after-tax profit margins, and consequently, the return on assets for all groups in 1980 was higher than the 1973 level.

One interesting aspect of the performance of Louisiana banks evident in Table 3 is the decrease in the equity multiplier during the 1970s. This recent decrease in debt utilization by banks stands in contrast to the earlier trend of the 1950s and 1960s when banks increased their reliance on debt capital. The decline in the equity multiplier may be attributed to either the imposition by regulatory authorities of requirements for higher levels of equity or to bank management's desire to reduce default risk.

Louisiana banks continue to display a healthy financial profile. Although on the average, profit margins fell during the 1970s, asset utilization and return on assets showed significant improvement. The return on equity of the state's banks showed moderate improvement, its growth being constrained by declining equity multipliers.

CONCLUSION

This article has employed a simple framework (the Du Pont system) to assess the changing profitability position of Louisiana banks and banks of other southeastern states. In assessing the results of the Du Pont analysis, some caveats should be considered. First, while comparisons are made with a peer group, no consideration is given to the question of whether the group as a whole is well managed. There is no objective standard. Second, and closely related, there may be a tendency to set goals based on the peer group rather than on the potential of the individual bank. Third, some part of performance is likely to be outside the control of management. For example, the local economic climate or regulatory constraints may impair management's ability to improve performance. Finally, while the purpose of the Du Pont system is to evaluate performance, no consideration is given to risk. A bank with a risky loan portfolio should be expected to have a higher return on assets and equity, while a bank with greater financial leverage should have a higher return on equity. Investors must determine whether the higher profitability compensates them for the higher degree of risk.

Regardless of any limitations of the Du Pont system, this article presents a profile of an industry that has remained vibrant and continued to grow during a troublesome economic decade. Banks in Louisiana, on the average, have performed in a superior manner to their southeastern counterparts. The median return on assets and equity for Louisiana banks are approximately 11 and 16 percent greater than the comparable figures of other southeastern states.

[1]The authors acknowledge and appreciate the assistance of Donald E. Kirsopp of the Division of Research in the College of Business Administration at Louisiana State University, Baton Rouge for data base management and programming assistance.

[2]Of the ten largest bank failures in United States history, nine have occurred since 1971.

[3]The source of data for the bank performance statistics presented in this article is Board of Governors of the Federal Reserve System "Report of Condition" and "Report of Income and Dividends" series, *Call and Income Subscription Service* (magnetic tapes), 1972-1980.

[4]Performance data for individual banks are available from the authors upon request.

[5]Some differences in performance indicators may exist across states due to bank branching and structure laws. These differences are not thought to be of sufficient magnitude to affect the results.

[6]In this study, southeastern states are defined to include Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina and Tennessee.

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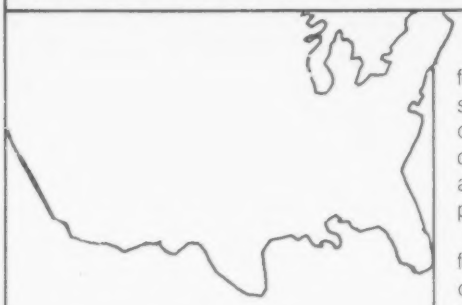
NATIONAL NEWS OF NOTE



An Aging America, More Prosperous?

Social and Economic Characteristics of Americans During Midlife, a report published by the U.S. Bureau of the Census last summer suggests that the aging of the U.S. population may be economically beneficial for the country as a whole. There were 44 million "middle-aged Americans" 45 to 64 years old in 1979 or about 20 percent of the total population. By the year 2010 the Census Bureau projects that 25 percent of the U.S. population will be in this age group, or 75 million people.

For middle-aged Americans, the unemployment rate averaged a low 3 percent in 1979. Incomes of these individuals are at or near their peak, especially for men, since most workers have risen in their occupations as far as they are likely to go. Of families maintained by persons 45 to 64 years of age, only 6 percent were below the poverty level in 1978 compared with 9 percent for all families.

As long as these trends continue, the implication of the Census Bureau findings is that average personal income will rise and the unemployment rate will decrease in the United States over the next two-three decades.

The Welfare Debate: Non-Cash Benefits

EDITOR'S NOTE: The following report is excerpted from the August-September 1981 issue of The Socioeconomic Newsletter *of The Institute for Socioeconomic Studies in White Plains, New York.*

More American households receive non-cash Federal benefits than cash payments, a recent census study found. Thirty-four percent of all the households in the United States receive such non-cash benefits as food stamps, school lunches, subsidized housing, Medicaid or Medicare. Twenty-nine percent receive cash through welfare, Social Security and unemployment compensation programs.

Almost half of those receiving welfare get benefits under three or more of the non-cash programs. These findings appeared in the Census Bureau's *Characteristics of Households and Persons Receiving Non-Cash Benefits: 1979.*

The study found that the non-cash benefits do not primarily help what the Reagan administration has called the "truly needy." Only 25 percent of recipients have incomes below the poverty line. Only 36 percent of the non-cash benefit recipients have incomes from zero up to and including 25 percent above the poverty line.

The most prevalent non-cash program for Social Security recipients is Medicare. Those on unemployment compensation use food stamps most heavily. The welfare population makes extensive use of all programs, led by a combination of Medicaid and Medicare.

About half of the households receiving at least one non-cash benefit have no earned income. But whether or not they have earnings, those who get non-cash benefits are equally likely to participate in two such programs.

One reason why people with incomes above the poverty line remain eligible for non-cash benefits is the way in which income is calculated in determining if they qualify. Households are eligible if they have a low income in one quarter but a relatively high income for the year as a whole. Only school lunches are provided on the basis of annual income.

City Government Employment Figures Mixed

Full-time city government employment decreased slightly (one-tenth of one percent) from October 1979 to October 1980, but part-time employment increased by 2.1 percent, according to *City Employment in 1980*, a recent report of the U.S. Commerce Department's Census Bureau.

The report presents city employment and payroll data for 417 cities with populations of 50,000 or more as of October 1980. These cities accounted for about 64 percent of all full- and part-time municipal employees, and 74 percent of all municipal payrolls.

Full-time city workers earned an average of $1,364 in October 1980, an increase of 8.1 percent over the previous year. Full-time employees—excluding teachers—in six largest cities earned an average of $1,603 for the month.

Education and police functions accounted for one-third of all city employment. Education includes elementary and secondary schools plus institutions of higher learning operated by city governments.

Between 1957 and 1980, city government employment increased from 1.5 million employees to 2.6 million, an average of about 2.1 percent per year. Monthly payrolls during this period rose from $461 million to $2.9 billion, or approximately 8 percent a year.

Nation's Farm Population Declines

A report jointly issued by the Department of Agriculture and the Census Bureau reveals that approximately 2.7 percent of the U.S. population, or one out of every thirty-six people, lived on a farm in 1980.

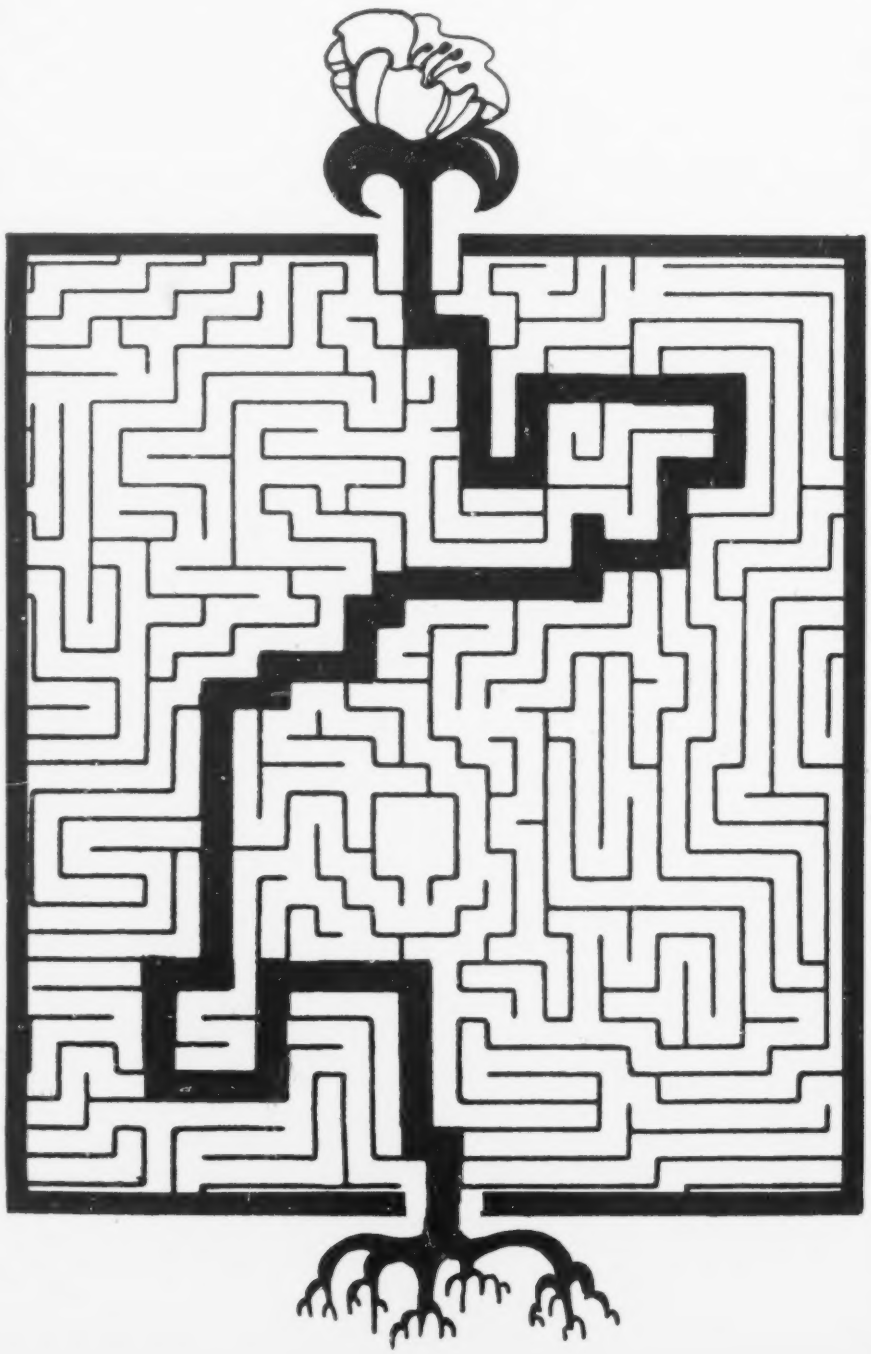
The nation's farm population was first identified separately in 1920, when 30.1 percent of the population lived on farms. However, by 1950 the farm population totaled only 15.3 percent of the total population. Although the downward trend in the number of farm residents has continued during the 1970s, the rate of decline slowed down to 2.9 percent per year, compared to a 4.8 percent annual decline during the 1960s.

Almost half of the 1980 farm population lived in the North Central region of the United States. The South, which until 1965 had the largest number of farm residents, ranked second, with 36 percent. The West and Northwest regions contained 12 and 7 percent, respectively, of the national total. □

William Lane

The Regulation of Commercial Banking in Louisiana

The commercial banking industry is in a state of flux brought about by changes in its regulatory structure and in the economy. This article focuses on the regulatory system governing commercial banking in Louisiana. The advantages and disadvantages of membership in the Federal Reserve System and of formation of a bank holding company are considered to explain why the majority of banks in the state have elected not to be members and why so many of them are forming holding companies. The issue of bank holding companies leads to a brief examination of interstate and intrastate branch banking, and the attempts to circumvent existing laws preventing such activity.



Commercial banking has changed from a staid institution populated by columned, marble-floored buildings to a dynamic industry of new products, technologies and services. Not all of this change has been voluntary, however. The operating and legal environment of the banking industry has undergone sharp revision forcing many changes. During the past few years the U.S. economy has experienced recessions, unemployment, high levels of inflation and voiatile interest rates. The next few years promise much of the same. Legislation will continue to increase the cost of deposits to banks while traditional banking markets will exhibit increasing competition between commercial banks, other depository institutions, and "near-banks" such as Merrill Lynch and American Express. Future legislation probably includes interstate banking. This article focuses on the regulatory system governing commercial banking, with specific references to Louisiana.

THE REGULATORY STRUCTURE

The commercial banking industry is supervised by many overlapping and, to some extent, competing agencies. Banks are under the jurisdiction of state banking commissions,[1] the Fed-

eral Deposit Insurance Corporation (FDIC), the Federal Reserve System (the Fed), and the Comptroller of the Currency. A bank may also fall under the regulatory powers of the Securities and Exchange Commission or other federal agencies. The appropriate agencies rule on branching requests, reporting policies, liquidity and capital positions, asset quality, mergers, and the issuance of securities. The overlapping nature of these agencies creates additional costs, both real and otherwise, to the banking industry. To a large extent, however, a bank may determine which agencies have jurisdiction over it by deciding whether to seek a state or national charter, whether to be part of a bank holding company and, if state chartered, whether to be a member of the Fed. Any bank that is organized through a national charter is legally required to be a member of the Fed. Furthermore, all commercial banks are now required to seek federal insurance through the FDIC.

Pros and Cons of Fed Membership

As is true nationwide, most Louisiana banks are state chartered and not members of the Fed. As Table 1 indicates, over the period 1976-1980 all the growth in numbers of banks has been in the nonmember category. Since 1973, six banks have dropped their membership in the Fed, including two national institutions which converted to state chartered banks in 1980. All new banks founded in Louisiana in 1980 elected nonmember status. Since 1975, the only new banks in the state that have become members of the Fed, are the three nationally chartered banks that were required to do so.

For state chartered banks, membership in the Fed offers few advantages and many disadvantages. Prior to the passage of the Depository Institutions Deregulation and Monetary Control Act of 1980, the primary advantage of membership in the Fed was access to the Fed's discount window, or lending operations, as a temporary source of liquidity. The 1980 Act grants all depository institutions this privilege, thus lowering the risk and cost of temporary borrowing for non-members.

Disadvantages of membership include additional supervisory controls, loan limitations, and more restrictive reserve requirements than those at the state level. The Fed's reserve requirements are all the more onerous because all federally mandated reserves must be held as non-interest earning deposits with the Fed or in cash by the bank. With high interest rates available elsewhere, these funds represent a large opportunity cost to the Fed member. This relative disadvantage of membership will be reduced by the 1980 Act's requirement for all insured depository institutions to maintain reserves with the Fed on certain types of accounts.

TABLE 1

Bank Charter Classifications in Louisiana, 1976-1980

Year	Total	Fed Member		Fed Non-Member	Total Additions[a]
		National	State		
Louisiana					
1976	254	54	7	193	1
1977	254	53	7	194	2
1978	256	54	7	195	2
1979	262	55	6	201	7
1980	269	53	6	210	7
United States					
1980	14,836[b]	4,425	997	9,000	265

[a]This represents gross additions, specifically the opening of new banks. There were three closures in Louisiana during the period.

[b]This figure includes 414 non-insured entities.

Source: Louisiana data is from the Board of Governors of the Federal Reserve System, *Call and Income Subscription Service*, (magnetic tapes), 1976-1980. United States data is from the 1980 annual report of the Federal Deposit Insurance Corporation.

In the past, a bank in Louisiana which obtained membership in the Fed through a national charter did have some advantages over a state chartered bank. More recently, however, these advantages have been reduced as the state regulatory agencies seem to have been promptly adopting regulations of the Fed regarding acceptable bank activities, branching, and so forth. For the majority of banks, these advantages have not outweighed the costs of membership in the Fed. Under the 1980 Act, the results are likely to be the same—the majority of banks will continue to elect not to be members of the Fed.

Louisiana's Split Fed Membership

Louisiana banks may experience another cost of Fed membership not as obvious. The Federal Reserve System is divided into twelve districts. These districts do not follow state lines, however. Louisiana is one of fifteen states which fall into two different districts. Banks north of Vernon, Rapides and Avoyelles parishes are part of the Eleventh Federal Reserve District, headquartered in Dallas, while banks in and south of those parishes are part of the Sixth, or Atlanta District. Through their examination process, agencies such as the Fed directly influence managerial decisions concerning how banks are financed, their liquidity, and the quality of their assets. Because the interpretation of a given bank's financial condition is likely to be partly subjective, a potential problem exists if regulatory constraints are not applied uniformly, at least within a given class of banks. The regulatory authority, in effect can place some banks at a competitive disadvantage relative to others in that class. There is some evidence that such may be the case in Louisiana.[2] In particular, member banks in the Eleventh District were found to exhibit statistically significant lower capital ratios in 1980, while member banks in the Sixth District experienced statistically significant lower interest income and interest expense, yet higher net interest margins, indicative of a more active interest rate management policy.[3] Because banks in Louisiana are restricted from establishing branches across parish lines, the com-

petitive effect of these differences is minimized except in those parishes along the border. Should Louisiana pass legislation allowing intrastate banking, especially through multibank holding companies, these differences would become much more important.

GETTING AROUND EXISTING REGULATIONS

Bank Holding Company Formations

Regardless of which regulatory agency has jurisdiction over them, many Louisiana banks are responding to the changing economic and legal environment by forming bank holding companies. Bank holding companies are regulated under several federal laws, and are supervised by the Federal Reserve System. The bank holding company format, however, offers several advantages. Bank holding companies allow a bank to engage in some nonbanking activities that either are prohibited for the bank itself, or have characteristics that would degrade the evaluation of the bank by its regulatory agencies. Such activities include insurance and real estate. Bank holding companies are useful in improving a bank's capital position because their borrowings are not considered to be borrowings of the bank for examination purposes. Although prohibited at present in Louisiana, multibank bank holding companies also may provide a means around a state's branching laws, as in Texas, and to a lesser extent, around state and federal laws preventing interstate banking. As an example of the latter, consider Citicorp's nationwide chain of consumer finance offices.

For their owners, bank holding companies provide additional benefits. Shareholders of bank holding companies gain greater portfolio diversification than is available from investing in the bank alone. In some cases, the bank holding company may also be formed to assume part of the debt the owners used to acquire the bank. Once formed, though, their greatest advantage remains their flexibility.

The growth in the number of bank holding companies in Louisiana has been phenomenal. At the end of 1976 there were sixteen; in 1980 there were thirty, ten of which had been formed in that year. In the first six months of 1981, at least three more were in the process of being formed.[4] In addition to the advantages cited above, this recent increase in the formation of bank holding companies in the state can probably be explained by the desire of bank managers to prepare for state and, especially, federal laws which would remove geographic barriers around the banks.

Investments and Acquisitions

Banks nationwide are designing other strategies for interstate banking. The most common appear to be investments in out-of-state banks in exchange for convertible securities or "toehold" positions of less than five percent (the legal maximum). Other activities are more imaginative. In 1980, Gulf and Western Industries acquired Fidelity National Bank of Concord, California. Any entity which acquires a commercial bank becomes a bank holding company and must divest itself of all nonpermissible, that is, nonbanking or banking related, activities. Clearly Gulf and Western had no intention of doing that. Instead it arranged for Fidelity to sell its commercial loans prior to the merger. By doing so, Fidelity technically ceased to be a commercial bank, and thus the combination was not a bank holding company. Note, that through its own commercial paper activities and grants of trade credit to many of its other customers, Gulf and Western itself makes commercial loans. Unanswered is the question whether or not an existing bank holding company could do something similar to achieve de facto interstate banking.

Creative Mergers

Savings and loan associations already are permitted to form interstate combinations. The first such merger occurred in September 1981 when Citizens Savings and Loan of San Francisco was granted permission to acquire West Side Federal Savings and Loan of New York City and the Washington Savings and Loan of Miami Beach. Proposals exist to allow mergers between banks and savings and loan associations on an interstate basis. In such mergers, the commercial bank would gain access to the deposit base of the savings and loan association, outside the bank's traditional geographic area. By adding a loan production office in the same area as the savings and loan association, the bank ends up with interstate full service banking. Such mergers have been proposed within state boundaries as a means to help the ailing savings and loan association industry. Within Louisiana, this form of merger would avoid the restrictions on intrastate branching.

CONCLUSION

The banking industry is shaped by the regulations it must comply with. Deregulation will most likely beget more regulations to explain the meaning of the previous legislation. The industry's key role in implementing monetary policy will preclude its ever being completely free from governmental regulation. Consequently, banks will continue to try to circumvent and search for more loopholes in existing laws, while retaining the flexibility to be ready to meet the challenges of new ones. In Louisiana, this will mean that banks will continue to obtain state charters, elect not to join the Fed, and form bank holding companies.

[1]In Louisiana, the Office of Financial Institutions is responsible for regulating state banking activities.

[2]The statistical evidence for this finding is available in the author's paper "The Impact of Federal Reserve District on Bank Characteristics," (Manuscript, 1981), available upon request.

[3]More remarkable is that these findings are likely to be the result of persuasion tactics and the personality of the Fed regional supervisors. Of the 59 member banks in Louisiana in 1980, 53 were national banks and therefore under the direct supervisory control of the Comptroller of the Currency. Because Louisiana is not split by Comptroller regions as it is by Fed regions, and because the Fed usually defers examination of national banks to the Comptroller, the differences found cannot be directly attributed to subjective differences in the examination process.

[4]J. C. Tillman, "Bank Industry Preparing for Changes in Law," *Baton Rouge Sunday Advocate*, 3 May 1981, p. 8-E.

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LOUISIANA BULLETIN

Utah, Louisiana Now Best Places to Retire

EDITOR'S NOTE: The following item is excerpted from the October-November issue of Modern Maturity.

Florida and Arizona are no longer the best places to retire to, according to a Chase Econometrics study. Instead, retirees would be better off in Utah or Louisiana. The study, which ranked the states according to such factors as their level of unemployment, growth in the number of retirees in the area, property tax loads, living costs, weather conditions, utility rates and availability of medical facilities, cultural and leisure activities, public transportaion and social services, found that low taxes, good weather and relatively low utility bills make Louisiana the second best retirement state in the nation. An additional feature of Louisiana—"its gracious hospitality to newcomers"—makes the state particularly attractive to those searching for a retirement home.

The South and Southwest generally ranked high because of their rapid economic growth, low taxes, prices and moderate climate. The West fared poorly in the study, mainly because of its high living costs and property taxes; and the Midwest was hurt by its high utility costs, poor weather and limited opportunities for part-time work. At the bottom of the list, though, were the states of the North and Northeast, ranking low in virtually all categories.

The top and bottom ten states in the study (excluding Alaska and Hawaii because of insufficient data) were:

Top Ten Retirement States		Bottom Ten Retirement States	
Rank	**State**	**Rank**	**State**
1	Utah	39	Minnesota
2	Louisiana	40	North Dakota
3	S.Carolina	41	Connecticut
4	Nevada	42	New Hampshire
5	Texas	43	New York
6	New Mexico	44	Rhode Island
7	Arizona	45	Vermont
8	Alabama	46	New Jersey
9	Florida	47	Maine
10	Georgia	48	Massachusetts

Report Recommends Expanding, Relocating New Orleans Free Trade Zone

Expansion and relocation of the New Orleans free trade zone could mean more jobs, more capital investment, and a broader manufacturing base, according to a study recently completed by the Kansas City-based Midwest Research Institute. The study was commissioned by officials of the City and Port of New Orleans to evaluate the feasibility of expanding and relocating Foreign Trade Zone No. 2 as part of their efforts to develop trategies, programs and sites to improve the economic development, and particularly the manufacturing base, of the area.

A foreign trade zone is a site within the United States which has special legal status. Foreign and domestic companies are allowed to import goods into such an area without paying custom duties or excise taxes, or being subject to import quotas. This allows manufacturers to import costly or quota restricted parts and then assemble or process them into finished goods. These finished goods can then be reexported at no cost, released into the U.S. market either with no fees when trade quotas are not full or at the reduced custom fees charged on finished goods. In 1971, only nine such zones existed in the United States, handling $200 million in goods. Today, fifty zones are operating and handle $50 billion in goods a year.

The New Orleans zone, which is currently the third largest in the country in terms of the dollar volume of goods handled, has been operating at capacity for sometime without sufficient facilities to accommodate potential new users. In addition, the city has traditionally served merely as a point of shipment for goods without developing its own manufacturing base.

The report recommends that the New Orleans zone be moved from its current 18-acre site to a 100-acre site within the New Orleans East area and begin actively soliciting new users. It also identifies 4,000 companies in 36 prime target industries which are most likely to locate in the expanded zone.

Bayou State Tenth in New Incorporations

The number of new incorporations in Louisiana increased 22 percent during the first four months of 1981 from its level during the same period in 1980, a report by Dun & Bradstreet reveals. The increase was the tenth greatest in the United States and more than twice the national average of 8.9 percent.

Nationwide, the total number of new incorporations was at an all-time high of 49,574 in April of this year. In Louisiana, 1,079 new corporations were formed during April, the fourteenth highest total in the country for the month. The April-to-April increase in the number of new incorporations over last year occurred in all parts of the country, with Louisiana's region, the West South Central area, at the top of the list. This area also includes Arkansas, Oklahoma and Texas.

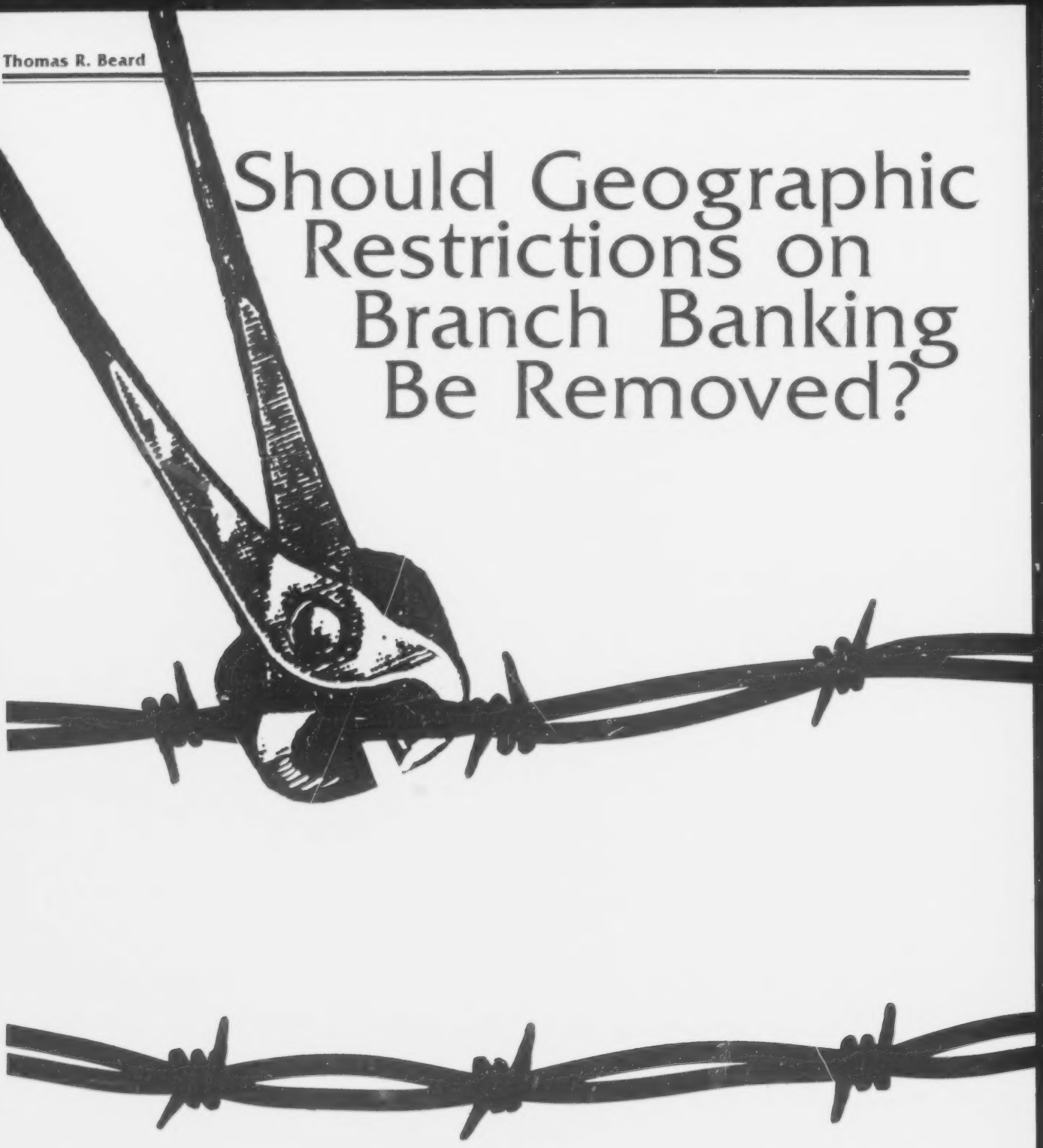
Louisiana's State and Local Workers' Pay Fourth Lowest in Nation

Full-time state and local government workers in Louisiana earned only an average of $1,073 a month during October 1980, the fourth lowest total in the nation, according to the data in a recent U.S. Department of Commerce study. Louisiana public servants earned $264 a month less than the national average of $1,337. Mississippi paid its workers the least, $949 a month, while Alaska workers were paid $2,178, twice the pay of a Louisiana worker.

The number of civilian public employees in the nation inceased by 1.6 percent between October 1979 and October 1980 to a total of 16.2 million. Civilian public payrolls, however, grew at a much faster rate of 10.3 percent during this period. Louisiana's total civilian public employment was 280,799 in October 1980, including 32,185 federal workers, 93,704 state employees, and 154,910 local employees. On a per capita basis, state and local government employment in Louisiana is nine percent above the national average, with 532 people in 10,000 working for the government in the state versus an average of 488 in 10,000 nationwide. □

Thomas R. Beard

Should Geographic Restrictions on Branch Banking Be Removed?



Pressures for relaxing legal restrictions on both intrastate and interstate branch banking have intensified in recent years. The available empirical evidence suggests several important advantages of wider branching authority, especially in a state such as Louisiana which has limited branch banking and prohibits multi-bank holding companies. Yet these advantages do not seem overwhelming in magnitude, and many significant questions remain unanswered. Given these uncertainties, the more prudent course is a gradual and cautious relaxation of existing barriers to geographic expansion.

By comparison with other industrial nations, the United States banking system is highly fragmented. This state of affairs is due partly to legal restrictions on the ability of banking organizations to expand geographically. Provisions of the McFadden Act of 1927 effectively prohibit banks from establishing full-service branches across state boundaries and leave the question of intrastate branching to state law. Currently, eleven so-called "unit banking states" prohibit branch banking entirely. Another twenty "statewide branching states" permit branching anywhere within a state's boundaries. Louisiana is one of nineteen "limited branching states" where branching is permitted only within a restricted geographical area. The relevant area in Louisiana is the parish. Thus, in general, Louisiana banks can open branch offices in the parish in which the head office is located, but cannot establish offices across parish lines.

Multi-bank holding companies represent a close alternative to branching. The Douglas Amendment to the Bank Holding Company Act of 1956 prohibits holding companies from acquiring banking subsidiaries in more than one state. Laws governing intrastate multi-bank holding company activities vary from state to state. Louisiana is one of only ten states that generally prohibits multi-bank holding companies.

Given both types of restrictions, it is not surprising that Louisiana has some of the nation's lowest statewide concentration ratios. One study found that in 1978, Louisiana's three-firm concentration ratio (defined as the percentage of deposits in the three largest banking organizations) was only 16.4 percent.[1] The five-firm ratio for the state was 22.5 percent. Both figures ranked Louisiana forty-fifth in the nation. Not only are these concentration ratios low, but they have declined steadily in recent decades.

Barriers to geographic expansion can be lowered by liberalizing either branching restrictions or restrictions on multi-bank holding companies. This article focuses primarily on the issue of branching. Decisions concerning branching can be made at two levels of government. First, decisions at the national level may override existing state restrictions on intrastate branching as well as allow partial or full interstate branching. Second, decisions at the state level can affect intrastate branching only. In analyzing the potential impact of wider branching in Louisiana, it is important to keep in mind the distinction between interstate and intrastate branching. For example, the impact of federal legislation that makes it possible for, say "giant" New York and California banks to establish full-service branches in New Orleans and Baton Rouge may be quite different from that of legislation allowing greater intrastate branching only, wherein the larger New Orleans and Baton Rouge banks could establish branches statewide.

CURRENT STATUS OF BRANCHING IN LOUISIANA

Extent of Branch Banking

Even with the current restrictions, there is considerable intraparish branching in Louisiana. At the end of 1978, there were 256 Louisiana banks operating a total of 715 branch offices. These figures rose to 262 and 764, respectively, in 1979, and 269 and 805, respectively in 1980—a net expansion of 13 banks and 90 branches over the two year period. A majority of Louisiana banks have at least one branch office in addition to their headquarters. Of the 269 banks in existence in 1980, only 73 were unit (or single office) banks.[2]

Not unexpectedly, branching is more prevalent in the large metropolitan areas. Slightly over one-third of Louisiana's banks are located in the state's

seven standard metropolitan statistical areas (SMSAs). However, more than one-half of the state's total bank offices (headquarters plus branches) are in these areas. Data reported by the Federal Deposit Insurance Corporation (FDIC) for June 30, 1979, show that the New Orleans SMSA had 30 banks and 177 banking offices. The Baton Rouge and Shreveport SMSAs had 18 banks and 117 banking offices and 21 banks and 100 banking offices, respectively. On a parish level, branching was most extensive in East Baton Rouge with 96 banking offices. Orleans Parish ranked second with 88 offices, and Caddo, third with 70.[3]

The ability to branch extensively within their own parishes has undoubtedly enabled Louisiana's larger banks to secure a greater percentage of SMSA deposits than would otherwise have been possible. This observation is consistent with national studies that indicate that SMSA concentration ratios are, on the average, highest in statewide branching states and lowest in unit banking states.[4] The FDIC reports that for Louisiana, the three largest banks had 58.4 percent of the deposits in the Baton Rouge SMSA, 58.4 percent in Shreveport, and 54.9 percent in New Orleans on June 30, 1979.[5]

Banking Rivals

It is instructive to compare the commercial banking industry with its major Louisiana rivals—savings and loan associations and credit unions. The Depository Institutions Deregulation and Monetary Control Act of March 1980 goes some distance in giving these three distinct types of depository institutions the opportunity to offer very similar services to consumers. This legislation grants all depository institutions the power to offer NOW accounts to individuals and gives federally insured credit unions permanent authority to offer share drafts. While banks now have the predominant volume of transaction-account business, competition from savings and loan associations and credit unions will be increasingly important. These new powers will complement the historical ability of savings and loan associations, and credit unions to offer time and savings deposits or their equivalent. The 1980 Act also gives federally-chartered savings and loan associations new powers to offer second mortgages, credit cards, consumer installment credit and trust services, as well as to operate remote automated service facilities. Banks now handle over 80 percent of the total consumer loan volume of these three types of institutions in Louisiana. This figure could change appreciably if savings and loan associations make aggressive use of their new powers to enter consumer loan markets.

Compared to commercial banks, Louisiana's savings and loan associations are smaller in number (125) and in median size ($24.5 million savings capital versus $35.3 million in bank deposits).[6] In addition, branching by savings and loan associations in somewhat less extensive (315 association offices). Compared to banks, larger percentages of savings and loan association headquarters and total offices are located in SMSAs. Credit unions, which in Louisiana are extremely large in number (491) and very small in median size ($0.3 million in share accounts), are even more frequently located in metropolitan areas than either banks or savings and loan associations.

Interestingly, statewide concentration ratios for each of these three depository institutions in Louisiana are relatively low. (Concentration ratios are defined as the percentage of deposits in the largest banks, the percentage of savings capital in the largest savings and loan associations, and the percentage of shares in the largest credit unions). In a study of the six states wholly or partly in the Sixth Federal Reserve District (Louisiana, Mississippi, Tennessee, Georgia, Alabama and Florida) it was found that concentration ratios for each type of institution were uniformly lowest in Louisiana.[7]

PRESSURES FOR EXPANDED BRANCH BANKING

Within Louisiana

Unlike the case for banks in unit and limited branching states, there are no restrictions on the ability of federal savings and loan associations to branch statewide. This factor may not have been especially important to banks in the past because of the limited opportunities for direct competition and, in Louisiana, the typically smaller size of savings and loan associations[8] and their inability or reluctance to branch extensively. However, the possibility that savings and loan associations will branch statewide—and one has already established offices in several major Louisiana cities—is certain to become of increasing concern to bankers as savings and loan associations offer NOW accounts and compete more forcefully in traditional bank markets.

Numerous bills to relax branch banking restrictions and permit the establishment of multi-bank holding companies have been introduced in recent sessions of the Louisiana legislature. No such legislation has yet passed. But with the implications of increased competition between banks and savings and loan associations, as well as numerous developments at the national level, pressures for wider geographic expansion privileges for Louisiana banks are likely to intensify.

At the National Level

Several major developments at the national level point in the direction of eventual interstate branching and the elimination of existing barriers to intrastate branching.[9] First, the influx of foreign banks into the United States market in the 1970s dramatically raised the issue of the appropriate geographic expansion privileges of foreign vis-à-vis domestic banks, since foreign banks could establish full-service branches wherever state law permitted. The passage of the International Banking Act of 1978 was designed to promote competitive equality between domestic and foreign banks. While the 1978 Act removed most of the competitive inequalities, a few remain. Further, the Heinz Amendment to the 1978 legislation directs the President, in consultation with the federal regulatory authorities, to make recommendations to Congress on the current relevance of the 1927 McFadden Act restrictions on branching. The Carter administration report, initially due in September 1979, was transmitted to Congress in January 1981. In general, the report proposes that Congress eventually permit interstate branching. However, it recommends that inter-

state expansion take place in phases and initially be limited to acquisitions of existing banks in nearby states. As a first step, the Carter administration report proposes permitting bank holding companies to buy out-of-state banks that would otherwise fail and allowing banks to set-up automatic teller machines across state lines. At the time of this writing, the Reagan administration's position on branching was not clearly formulated.

Second, some elements of interstate banking already exist for United States banking organizations since restrictions in the McFadden and Bank Holding Company Acts have been interpreted as applying primarily to the markets for locally oriented deposits and loans. These activities, all of which have grown rapidly in recent years, include: (1) Edge Act Corporations, which are international banking organizations that may be located outside of a bank's home state; (2) interstate loan production offices of banks; and (3) interstate activities of non-bank subsidiaries of bank holding companies. The last activity may be most significant. While the types of affiliates that bank holding companies can acquire are restricted to those "closely related to banking," they include affiliates dealing in mortgages, consumer finance, credit cards, leasing, data processing, financial advice, and certain types of insurance and investment trusts. Especially numerous are consumer finance and mortgage banking affiliates. Already, such giants as New York's Citicorp and Manufacturers Hanover Trust have an extensive national presence.

Third, non-bank depository institutions, with which banks must compete in markets for locally-oriented deposits and loans, generally have broader geographic expansion powers. As noted earlier, federal savings and loan associations can now branch statewide in all states. New federal mutual savings banks have increased branching powers, and credit unions have no geographic restrictions, per se. In addition, many non-depository firms that operate without geographic restrictions have moved into financial services that compete closely with traditional banking operations. For example, Merrill, Lynch, Pierce, Fenner and Smith, the giant brokerage firm, offers the virtual equivalent of checking and savings accounts on a nationwide scale.

Finally, the Depository Institution Deregulation and Monetary Control Act of 1980 changes the financial environment in such a dramatic way that the question of branching becomes ever more pressing. Given the Act's numerous measures designed to deregulate the financial system and increase competition, many observers foresee an inevitable movement in the 1980s toward some form of interstate banking. One analyst foresees basic changes "... which taken together, seem to promise a reasonable compromise between completely eliminating all geographic barriers and maintaining the status quo." He continues, "The removal of these barriers will not be easy, nor will they all come quickly. ... But the trend toward relaxation of geographic restraints seems inevitable. ..."[10]

THE CASE FOR AND AGAINST BRANCHING

Is it desirable to relax restrictions on branching? In attempting to answer this question, one must consider the available empirical evidence. This evidence is briefly summarized below as it relates to the issues of (1) economies of scale, (2) concentration, and (3) service.

Economies of Scale

Economies of scale refer to declining average cost as size increases. If there were significant economies of scale in banking—as, for example, in the automobile industry—unlimited branching would eventually lead to the industry's having a handful of giant banks. Such is clearly *not* the case, however, as indicated in a recent survey of the literature by McCall.[11] The demise of large numbers of smaller banking organizations because of a natural inability to compete on the basis of direct operating costs is thought to be very unlikely.

The literature does suggest that economies of scale exist, but these economies are relatively small and diminish rapidly as bank size increases. Current geographical restrictions, which limit the size of banks, have thus resulted in some slight inefficiencies and in a greater number of smaller banks than would otherwise exist. Only slight benefits in terms of lower operating costs, however, could be obtained by removing these restrictions.

The present mix of large and small, unit and branch, and independent and holding company-affiliated banks in many major metropolitan areas in the United States also suggests that no particular type of organization enjoys such cost advantages as to lead to the elimination of other types of organization. California, for example, has almost 300 independent banks, even though Bank of America, the world's largest, has a network of over 1,000 branches across that state.

Concentration

Opponents of expanded branching often express the fear that large banking organizations will enter new markets and, over time, control large market shares, whether or not they enjoy significant cost advantages. They argue that such concentration may lead to greater "monopoly" power, resulting in both higher bank profits and poorer bank service and performance.

The available evidence on the potential impact of federal branching policy on concentration and competition in the banking industry is summarized in a recent paper by Savage and Solomon.[12] In general, they conclude that while the empirical evidence on competition provides limited support for expanded branch banking, this evidence is not totally supportive. The elimination of existing intrastate restrictions and the extension of branching on an interstate basis would lower barriers to entry and extend the force of potential competition into every banking market. Yet certain dangers exist, such as the growth of aggregate concentration and possible resulting oligopolistic behavior. According to Savage and Solomon, such concerns suggest there are advantages to limiting interstate expansion to branching *de novo*, rather than expansion by acquisition and merger with existing banks.

In analyzing concentration ratios, and the potential impact on these ratios of removing barriers to branching, one must be careful to distinguish the geographic area examined. At the state level, there are substantial differences in average concentration ratios between statewide branching states and

states with restrictive branching laws. Data cited in Savage and Solomon indicate that in 1978, the five-firm (unweighted) concentration ratio in statewide branching states was 72.6 percent, as compared with 37.2 percent in both unit and limited branching states. The twelve states considered "highly concentrated" all had statewide branching. The nineteen "least concentrated" states included only one statewide, eleven limited (Louisiana among them), and seven unit banking states. Furthermore, over the 1955-78 period, concentration increased in a substantial majority of statewide branching states while decreasing in a substantial majority of limited branching and unit states.

The impact of removing branching restrictions is likely to be greatest in the least concentrated states—primarily unit and limited branching states that do not permit multi-bank holding company activity. In these states, concentration would certainly increase as major in-state banks established themselves as statewide organizations, especially through mergers and acquisitions of existing banks (although this result would be mitigated somewhat by the entry of out-of-state banks if unlimited interstate branching were permitted).

The relevance of concentration at the state level is questionable, however, since state boundaries are not good approximations of bank markets. Concentration may be most relevant for the preservation of competition at the SMSA and county levels, which best approximate local bank markets.

As noted earlier, data for SMSA concentration ratios indicate that concentration is, on the average, highest in statewide branching states and lowest in unit states. The differences, however, are not as large as the differences in statewide concentration ratios. Average SMSA concentration ratios have declined over the 1966-78 period in a roughly similar fashion in each of the three types of states.

The evidence relevant to the potential impact of wider branching on local concentration is not altogether clear. In local areas where both branching and multi-bank holding company expansion have been prohibited or severely restricted, one might expect some increased concentration as smaller institutions are acquired by larger ones. At the same time, allowing branch entry into a local market should also result in increased entry *de novo*, as opposed to entry via acquisition or merger with an existing bank. Entry *de novo* thus introduces a larger number of competitors into the market. The deconcentration effects of new entry depend on what share of total deposits the new entrants can acquire. Available empirical evidence suggests this share may not be large, at least in the short run.

Service continuity and stability of service. There are many aspects to the question of whether local areas are "better served" by state laws which permit, restrict, or prohibit branching. McCall and Lane have considered one such aspect of "service"—the continuity and stability of service to local areas.[13] They analyze the data for bank failures in the United States and banks on the FDIC's list of "problem" banks and find no evidence that multi-office banking authority or organizational structure have had an appreciable impact on bank closings or have affected substantially the risks to bank safety and soundness. Thus, this issue does not appear to be a very significant one.

Availability of banks and bank offices. McCall has also surveyed the other areas of "service,"[14] including the availability of banks and bank offices to customers. The evidence indicates that, statewide, broader branching authority has resulted in a smaller number of banking *organizations* but a significantly larger number of banking *offices* than would otherwise have existed.[15] While the evidence on the number of banks in local markets is mixed, the number of local banking offices is clearly larger where broader branching is permitted. In fact, the increased convenience and availability of bank offices in both metropolitan and nonmetropolitan areas is one of the strongest arguments for relaxing branch restrictions.

Bank performance in local markets. A third area of "service" is bank performance in local markets. McCall argues that there is fairly substantial evidence that the extension of statewide branching authority to currently restricted states would result in improved performance in terms of lower loan rates, greater loan output, higher deposit rates, and lower bank profits. These findings are consistent with the hypothesis that lower barriers to entry result in increased potential and/or actual competition, and thus more competitive bank conduct and performance.

Studies that focus on bank performance under different branch banking provisions, as well as those that focus on *de novo* entry, provide evidence that the mere existence of broader intrastate authority and the greater threat of new bank entry improve bank performance.[16] Other studies investigate the impact of market concentration on bank performance. Of thirty-nine studies of the structure-performance relationship surveyed by Rhoades, thirty had found a statistically significant relationship between various measures of structure (most often measured by concentration ratios) and bank performance (most often measured by interest rates or profit rates.)[17] The effect was often quantitatively small, however. Furthermore, the relevance of structure-performance studies to the branch banking controversy is not clear-cut, since broader branching authority will not necessarily lead to less concentration in local markets, as noted earlier.

While most evidence does point in the direction of improved bank performance in local markets with broader intrastate branching, some contradictory evidence can be inferred from a recent paper by Fellows and Beard.[18] In this study the elasticity of bank loan demand (that is, the percentage change in the quantity of loans demanded bought about by the percentage change in the interest rate on loans) is used as a performance variable. The elasticity of loan demand is calculated for each of the FDIC's 297 economic areas of the United States. It turns out that, on the average, loan demand is most elastic in statewide branching states. Unit banking thus appears to be "preferable" since a higher degree of elasticity of loan demand suggests a greater degree of competition. This measure of performance, however, ignores the greater convenience aspect of branch banking. Further, the FDIC's economic

areas may not match local banking markets very closely.

Range of bank services and credit availability. McCall concludes that reliable evidence on two other areas of "service" to local communities is weak or nonexistent—the range of bank services provided and the availability of bank credit. Considerable evidence does exist that loan/deposit and loan/asset ratios are higher in broader branching states than in unit states and higher for multi-office branch banks than for similar unit banks. However, whether more or less credit is available to local communities cannot be known since virtually no information exists on the local versus non-local nature of loans. Therefore, no conclusive judgments can be rendered on the arguments of branching opponents that branch banks transfer funds from rural areas to metropolitan areas where they are headquartered and reduce loans to particular classes of rural borrowers in order to expand loans to large business customers.

CONCLUSION

Pressures for relaxing restrictions on both intrastate and interstate branching have increased in recent years. While these pressures will prove to be irresistable in the long-run, the process of removing geographic barriers will be slow, cautious and gradual. Small banks are expected to fight vigorously against any substantial changes.

A survey of the attitudes of chief executive officers of Louisiana banks by Strader and King[19] points up this opposition. Over three-fourths of the respondents to their questionnaire felt that Louisiana's branch banking laws should *not* be changed. Substantial majorities felt that more widespread branching would lead to increased bank costs and increased concentration, and that neither consumers' nor businesses' needs would be more effectively served. (The authors found that the attitudes of bank executives on multi-bank holding companies were similar.) Not surprisingly, when responses were disaggregated according to the size of banks, some significant variations were noted. For example, almost 84 percent of the respondents from "small" banks, but only 36 percent of those from "large" banks, agreed with the statement that present branching laws should not be changed.

The available empirical evidence should give little comfort either to those who view existing barriers as a great curse on mankind or those who feel branching restrictions are a wonderful blessing protecting us from the evils of giant monopoly power. To be sure, the evidence does indicate several important advantages of wider branching authority, especially within a state such as Louisiana. These advantages include: (1) the realization of slight economies of scale as the very smallest banks expand or are eliminated by merger and acquisition; (2) the beneficial effects of increased competition in lowering loan rates and raising deposit rates; and (3) the greater availability of bank offices and increased convenience for bank customers. Yet these advantages do not seem overwhelming in magnitude, and many significant questions remain unanswered. While Louisiana's statewide bank concentration ratio would undoubtedly rise in the event of statewide branching, of more importance is the question of concentration and competition in local bank markets. Given these uncertainties, the more prudent course—certainly at the national level—is the one we will likely experience—that is, a gradual and cautious relaxation of existing barriers to geographic expansion.

[1]Cited in Donald T. Savage and Elinor H. Solomon, "Branch Banking: The Competitive Issues," *Journal of Bank Research* 11 (Summer 1980): 110-121.

[2]Federal Deposit Insurance Corporation (FDIC), *1979 and 1980 Annual Reports of the Federal Deposit Insurance Corporation*, (Washington, D.C., 1980a, 1981).

[3]Federal Deposit Insurance Corporation (FDIC), *Summary of Deposits in All Commercial Banks and Mutual Savings Banks as of June 30, 1979*, (Washington, D.C., 1980b), pp. 36-37.

[4]Savage and Solomon, p. 114.

[5]FDIC (1980b), p. 107.

[6]These and subsequent data in this section are from B. Frank King, "A Primer on Financial Institutions in the Sixth District States," *Economic Review, Federal Reserve Bank of Atlanta* 66 (February 1981): 4-9.

[7]Ibid.

[8]In a majority of the Sixth Federal Reserve District states, the median savings and loan association is larger than the median bank. In Florida and Alabama, four of the ten largest depository institutions are savings and loan associations. Louisiana is unique in that none of its ten largest institutions are savings and loan associations.

[9]A more detailed discussion can be found in Thomas R. Beard, "The Branch Banking Controversy," *Review of Regional Economics and Business* 6 (April 1981): 23-28.

[10]John M. Godfrey, "Deregulation: The Attack on Geographic Barrier," *Economic Review, Federal Reserve Bank of Atlanta* 66 (February 1981), p. 21.

[11]Alan S. McCall, "Economies of Scale, Operating Efficiencies and the Organizational Structure of Commercial Banks," *Journal of Bank Research* 11 (Summer 1980): 95-100.

[12]Savage and Solomon, pp. 110-121.

[13]Alan S. McCall and John T. Lane, "Multi-Office Banking and the Safety and Soundness of Commercial Banks," *Journal of Bank Research* 11 (Summer 1980): 87-94.

[14]Alan S. McCall, "The Impact of Bank Structure on Bank Service to Local Communities," *Journal of Bank Research* 11 (Summer 1980): 101-109.

[15]See, for example, Donald T. Savage and David Burras Humphrey, "Branching Laws and Banking Offices," *Journal of Money, Credit, and Banking* 11 (May 1979), 227-230.

[16]See, for example, Alan S. McCall and Manferd O. Peterson, "The Impact of De Novo Commercial Bank Entry," *Journal of Finance* 32 (December 1977): 1587-1604.

[17]Stephen A. Rhoades, "Structure and Performance Studies in Banking: A Summary and Evaluation," *Staff Economic Studies* (Washington, D.C. 1977): 1-44.

[18]James A. Fellows and Thomas R. Beard, "Some Welfare Implications of Legal Restrictions on Commercial Bank Entry," *Journal of Bank Research* 11 (Autumn 1980): 159-168.

[19]Max H. Strader and John O. King, "Branch Banking in Louisiana: Onward and Upward or Small Is Beautiful?," Southeastern Louisiana University, College of Business, Center for Business and Economic Research, Report No. 2-81 (Hammond, April 1981): 1-13.

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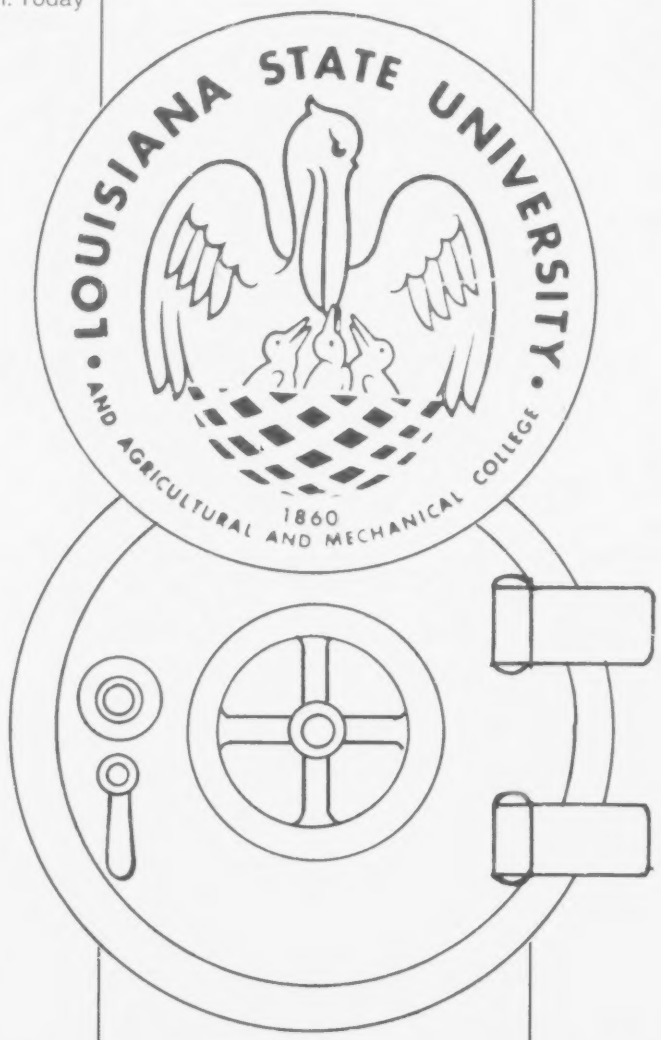
Dan G. Bailey

SPECIAL REPORT

Banking Education At LSU

Over the years the College of Business Administration at Louisiana State University (LSU) has developed an unparalleled reputation as being a leader in banking education. Coordinated through its Banking Center, the college offers both undergraduate and graduate degree programs in the banking field. During the last decade the college has greatly expanded its continuing education program. Today



almost 2,500 individuals participate in the many adult professional development banking programs that take place on the LSU campus each year.

The **School of Banking of the South** (SBS) is the oldest and largest of these programs. Designed to fulfill the advanced educational needs of southern bankers, it is sponsored by the fifteen state bankers associations of the Southern Bankers Conference in cooperation with LSU. Since enrolling its first class in 1950, SBS has provided advanced banking studies for more than 7,000 bank officers and regulatory officials. SBS is a generalist's school, providing wide coverage of all aspects of banking to middle- and upper-level management of all size banks. The school continues some traditional courses while also developing new specialized protion. The course of study spans a three-year period, with a two-week resident session each year in the late spring on the LSU campus.

Now in its eighth year, the **Louisiana Banking School for Supervisory Training** is designed to expose bank supervisory personnel to concepts in human behavior and communication. The Louisiana Bankers Association, which sponsors this annual program, conducts two identical one-week sessions in Lafayette at the University of Southwestern Louisiana and in Baton Rouge on the LSU campus. Approximately 125 participants from around the country attend the LSU session each year.

Every July LSU hosts the third and last of the yearly two-week resident sessions for the **Central American School of Banking.** The Central American school offers to Spanish-speaking bankers the opportunity to receive graduate level banking education. The first two annual sessions of the program are offered in Tegucigalpa, Honduras and all the classes are conducted in Spanish. Most of the Central American countries are represented by the 125 participants who attend the school each summer.

Also in July, the College of Business Administration at LSU, the Louisiana Council on Economic Education and the Louisiana Bankers Association together sponsor a one-week intensive **Money and Banking** workshop for high school teachers from throughout Louisiana. This program attracts about forty participants each summer. Its goal is to give its participants the background to be able to better explain the economic and banking systems of the United States to their high school students.

In its third year is the **NABW/LSU Bachelor's Degree Program** sponsored jointly by the National Association of Bank Women and LSU's College of Business. The program is designed expressly for the woman banker who is committed to a full-time career in banking and who wishes to earn a bachelor of science degree in management and administration without interrupting her career. At the heart of the program is a series of six management institutes. These two-week sessions, which are held on the LSU campus every August and January, provide the basic core of the management curriculum. Twenty-five participants, all sponsored by their banks, are accepted into the program each year.

The **Graduate Institute of Bank Marketing,** which is open to marketers from all types of financial institutions, will hold its fifth session on the LSU campus in October of 1981. This program consists of two one-week sessions held one year apart. During the interim between sessions, each marketer prepares and submits a marketing plan for his or her institution. That plan is then carefully reviewed by a marketing expert and an individual critique is given for each plan submitted. The 1981 session is expected to attract approximately 60 participants.

A brand-new addition to the college's banking education curriculum, the **Commercial Credit Analysis Seminar,** held its first session on the LSU campus from November 8-11 of this year. This two-and-a-half day program is designed to provide opportunities for lending and credit officers to sharpen skills and to develop new approaches within the commercial credit area. Several sessions are anticipated each year.

In November 1981, LSU held a presentation of the Olson Research Institute's **Asset/Liability Management Seminar.** The basis for the seminar series is the realization that the success of any financial institution, large or small, depends on sound asset liability management.

In the planning stages at LSU are two additional educational programs aimed at meeting specific needs within the banking industry. First, an annual three-day seminar entitled **Productivity: The Key to Profitability** is scheduled for an inaugural session in April 1982. This seminar is expected to attract fifty to sixty upper bank management personnel from throughout the Southeast each year.

Second, a state-level **General Banking School** sponsored by the Louisiana Bankers Association is scheduled for its first session in June 1982. With enrollment in the two-year program expected to reach 200 within three years, the state banking school will expose bankers within Louisiana to material in order to better prepare them for participation in a graduate level banking program, such as the School of Banking of the South.

The College of Business Administration at Louisiana State University, Baton Rouge is proud of its position as a leader in banking education. Combining traditional degree programs with general and specific adult education programs, the college strives to meet all the various education needs within the banking industry.

For further information about the programs described in this article, contact:

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COLLEGE HIGHLIGHTS

LCEE Celebrates Silver Jubilee

The Louisiana Council on Economic Education celebrated its twenty-fifth anniversary September 25, 1981 with a reception and dinner at the Fairmont Hotel in New Orleans. The council has grown from a small group conducting summer workshops for high school teachers at Tulane University to a statewide organization of six centers, each conducting a wide range of programs. Based at LSU-Baton Rouge, the council has other centers at the University of New Orleans, Centenary College, Louisiana Tech, McNeese, and the University of Southwestern Louisiana. Howard M. Schober directs the council as it prepares and distributes economic education materials to local teachers and makes presentations at regional and national meetings of teachers, economists, and economic educators.

Public Administration Institute Established

The establishment of LSU's Public Administration Institute (PAI) was approved by the Louisiana State Board of Regents this May. The purpose of the new institute is to provide an administrative framework for the orderly expansion and development of quality public administration education at LSU. The institute will be responsible for administering LSU's undergraduate program in public administration, six-year old master's degree program in public administration (MPA), and other public sector education curricula. The PAI will develop additional student internships in government, assist in placing students in initial career positions, do public sector policy and empirical research and work with local and state agencies to increase public sector professionalism.

David B. Johnson director of the PAI, explains that the new institute will be composed of representatives from the seven departments and three colleges at LSU which have core courses in the curriculum, plus other faculty who have an interest in furthering the objectives of public sector education.

For additional information about the PAI, contact:

Dr. David B. Johnson, Director
Public Administration Institute
College of Business Administration
CEBA 3139
Louisiana State University
Baton Rouge, Louisiana 70803
(504) 388-6645

EDC Merges with Research Division

The Economic Development Center was merged with the Division of Research, both located in the College of Business Administration at LSU, this September. The Economic Development Center will maintain its separate identity within the Division, but the two units will cooperate more closely in research and other activities. Both offices are located in Room 3139 of the CEBA building on the Baton Rouge campus.

Honors and Awards

- Jerry E. Trapnell, associate professor of accounting at LSU, has been appointed editor of the journal, *Louisiana Certified Public Accountant*. Dr. Trapnell also received the George W. Fair Award for Excellence in Teaching for the second consecutive year from LSU's chapter of Beta Alpha Psi, the national honorary accounting fraternity.
- The LSU chapter of Beta Alpha Psi was recognized as a superior chapter for the fourth consecutive year at the national honorary accounting fraternity's annual meeting in Chicago this summer.
- At the 1981 convention of Pi Sigma Epsilon, the national sales and marketing fraternity, this summer in Houston, the LSU chapter won six of the society's nine annual awards. Alvin C. Burns, associate professor of marketing at LSU and faculty advisor to the group, reports that the LSU chapter now ranks third in the nation.

Grants Awarded

- Banwari L. Kedia, associate professor of management at LSU, has been awarded a $55,560 grant by the Louisiana State Board of Regents to begin work on establishing a Center for Technology Transfer in International Trade on the Baton Rouge campus. If established, the center's objective will be to facilitate the application of innovative technology and to establish a master's level curriculum in international business at LSU.
- The Economic Development Center (EDC) in the College of Business Administration at LSU has received a $60,509 grant from the Louisiana State Board of Regents to develop a data bank and information system for port planning and management. The Center for Wetland Resources at LSU will be assisting the EDC in this project.

The EDC has also been awarded $10,000 in Trade Adjustment Assistance Grants to support its participation in the nationwide outreach program to locate firms whose sales are being negatively affected by import competition. Upon certification, such

firms may receive complimentary business consultation from the Economic Development Administration of the federal government.

Finally, the Economic Development Administration has renewed its technical assistance grant to the EDC for $41,000 to enable the center to continue its work on the Baton Rouge campus.

• The Louisiana State Board of Regents has awarded a $65,000 year-long grant to the Division of Research in the College of Business Administration at LSU to develop an econometric model for the state of Louisiana. Three LSU economists, Loren C. Scott, James R. Richardson and A. M.M. Jamal, will work on the project which will enable the division to generate quarterly forecasts of output, income and employment for the various sectors of the Louisiana economy.

• LSU's Governmental Services Institute and Division of Research in the College of Business Administration have been awarded a $150,000, two-phase grant from the Louisiana Department of Labor to develop an occupational information system for the state. The system will contain current and projected labor market information for various occupational categories. A. M.M. Jamal, a research economist in the division, will develop the manpower supply projections, as well as analyze the labor demand and supply forecasts, in order to prepare manpower utilization policy recommendations. Don Kirsopp, a computer programmer in the division, will develop the data base which will contain all the historical and projected labor market information for the system, as well as automate the procedures to be used for comparing the labor demand and supply projections.

• A. M.M. Jamal has also been awarded a $10,000 grant from the Energy Programs Office of LSU to carry out his research study "Projecting the Economic Activity of the Lignite Coal Areas in the 1990s."

• "The Influence of Rural-Urban Migration on the Fertility of Migrants in Developing Countries: Phase II" is the title of the $299,372, two and one-half year grant recently awarded by the U.S. Agency for International Development to Bun Song Lee, an associate professor of economics in the College of Business Administration's Division of Research at LSU. Using the model developed for Korea in phase I of his study, Dr. Lee will investigate whether rural-to-urban migrants have lower fertility rates than permanent residents of rural areas in Mexico and one African country.

Seminars, Conferences

• Herman E. Daly, professor of economics at LSU, was asked to speak on the topic "Strategies for Sustainable Economic Development" for two World Bank seminars held in Washington, D.C. in May and October of this year.

• David B. Johnson, director of the Division of Research in the College of Business Administration at LSU, was asked by the American Enterprise Institute of Public Policy Research to coordinate a conference on the Law of the Sea in Washington in October. Dr. Johnson, a member of the U.S. delegation to the Law of the Sea Conference of 1974 in Caracas, describes the conference's theme as being the most important international issue since World War II.

Recent Faculty Publications

John L. Waltman, assistant professor of business communications at LSU, has had his article "Avoiding Jargon in Police Reports," which originally appeared in the *FBI Law Enforcement Bulletin*, republished for the eighth time in the *South Dakota Lawman*. In addition, his article "Silver Identification" which was first published in the *Alabama Police Journal*, has been republished in *Tennessee-Mississippi Lawman*.

New Faculty

• The Department of Accounting has three new faculty members this fall. All three are tax specialists. Anthony P. Curatola is an assistant professor and earned his Ph.D. from Texas A & M University.

Michael J. R. Hoffman is a Ph.D. candidate from Indiana University, Bloomington, and an instructor for the department.

Richard A. White, an assistant professor, earned his D.B.A. at Arizona State University.

• John L. Waltman has joined the Department of Business Communications and Office Systems as an assistant professor in communications. Dr. Waltman earned his Ph.D. in English literature from the University of Texas at Austin.

• Edward A. Zarruk, a M.B.A. graduate of LSU, has joined the Department of Quantitative Business Analysis this fall as an instructor in forecasting.

• Six new faculty members have joined the Department of Economics this fall.

Thomas D. Birch, a Ph.D. candidate from Indiana University, is an instructor in public finance, economic theory and the history of economic thought.

Timothy A. Deyak, who earned his Ph.D. from the State University of New York at Binghamton, is an assistant professor in environmental economics, public finance and urban economics.

W. Cary Heath, an instructor in the history of economic thought, is a Ph.D. candidate at LSU.

Instructors Richard L. Sprinkle, a Ph.D. candidate at the University of Arkansas, and James L. Swoppard, a Ph.D. candidate at the University of Florida, are teaching in the area of macroeconomics.

Howell H. Zee, who recently earned his Ph.D. from the University of Maryland, is an assistant professor in general economic theory, monetary theory, public finance, and public choice and welfare economics.

• Three new assistant professors have joined the Department of Finance this fall. John M. Caks, who received his Ph.D. from the University of Pennsylvania, and David C. Cary, who earned his Ph.D. at the University of California at Los Angeles, are teaching in the area of financial management. James D. Shilling, a specialist in real estate, received his Ph.D. from Purdue University. □

Walter H. Bass

SPECIAL REPORT

The Economic Recovery Tax Act of 1981, Tax Incentives for Business

The Economic Recovery Tax Act of 1981 was signed into law by President Reagan on August 13, 1981. As its impressive title suggests, the Act is designed to ensure economic growth in the years ahead. The underlying multi-year tax cut program is touted as one which will upgrade the nation's industrial base, stimulate productivity and innovation throughout the economy, lower personal tax burdens, and restrain the growth of the federal government. Tax incentives for business under the new legislation primarily focus on capital cost recovery. This special report outlines the major provisions of those incentives that began to take effect on October 1, 1981.

MAJOR INCENTIVES

Accelerated Cost Recovery System

The Accelerated Cost Recovery System (ACRS) dramatically changes the traditional system of tax depreciation by allowing cost recovery over a period shorter than the useful life of the property. The ACRS provides class lives of three, five, ten and fifteen years for tangible personal property and real estate with a fixed recovery allowance based upon the

150, 175 and 200 percent declining balance methods.

The three-year class consists of automobiles, light duty trucks, machinery and equipment used in research and development, and some special tools. Almost all other machinery and equipment are assigned to the five-year class. The ten-year class applies almost exclusively to public utility property. Most depreciable real estate is assigned to the fifteen-year class.

The new system will also eliminate the problems of the Internal Revenue Service (IRS) in determining the length of "useful lives." While the new system is simpler, it will be less flexible than previous rules since it is, for the most part, mandatory for new and used property placed in service after December 31, 1980.

In addition, it has been noted that ACRS will create, at least temporarily, operating losses for many businesses. Therefore, the carry-over period for these losses has been extended from seven to fifteen years.

INVESTMENT TAX CREDIT

While the Act does not expand the availability of the investment tax credit, nor change the types of equipment eligible for it, the new law has the overall effect of slightly increasing the amount of allowable credit because of the changes in class lives under the accelerated cost recovery system. All property in the three-year class will qualify for a 6 percent credit, while property in the five, ten and fifteen year class will qualify for the full 10 percent allowable credit. The Act raises the current $100,000 ceiling on used property qualifying for the investment tax credit to $125,000 in 1982, and $150,000 in 1985 and afterwards. In addition, the unused credit carryover period has been extended from seven to fifteen years.

New Leasing Rules

Due to the fact that some businesses will not be able to take advantage of the larger recovery allowances and investment tax credits under the ACRS, Congress believes that some vehicle is necessary to transfer the unused tax benefits to passive, lessor corporations. Under the prior law, such lessors were not allowed these benefits because economic risk was effectively transferred to the lessee through complex leasing agreements.

Generally, a transaction will qualify for the safe harbor provision if the lessor and lessee both concur to treat their agreement as a lease, the term of which cannot exceed 90 percent of the useful life of the leased property. In addition, the leased property must qualify for the investment tax credit and must be leased within three months after acquisition.

Credit for Rehabilitated Buildings

In an attempt to provide the incentive for urban rehabilitation and renewal, the Act allows a 15 percent credit for the cost of substantial renovation of commercial buildings that are thirty to forty years old, a 20 percent credit for buildings that are at least forty years old, and a 25 percent credit for rehabilitating certified residential or commercial historic structures. The credit is available to a lessee undertaking the rehabilitation as long as the remaining term of the lease is at least fifteen years when the rehabilitation is completed. Furthermore, the prior tax law provisions, which allowed a 10 percent rehabilitation credit for commercial buildings and rapid cost recovery of certified historic structures, has been repealed.

Credit for Research and Experimental Expenses

In line with its other capital cost recovery provisions, the Act provides for a new nonrefundable tax credit for research and development expenditures. The credit is available for qualified expenditures for the taxable year whether or not the taxpayer has elected to currently deduct or amortize those expenditures. To further encourage research activities, the credit will generally be 25 percent of the excess of the taxpayer's qualified expenditures during the taxable year over the average of his yearly expenditures for the prior three years.

MISCELLANEOUS PROVISIONS

In addition to the above, there are many miscellaneous provisions in the Economic Recovery Tax Act of 1981 that will affect small businesses and special taxpayer situations. Some of the more important ones are listed below.

Corporate tax rates will be reduced from 18.5 to 17.5 percent on the first $50,000 of taxable income in 1982, and to 16.5 percent, in 1983.

Beginning in 1982 taxpayers can elect to expense a small amount of cost recovery property as follows:

1982-1983	$ 5,000
1984-1985	7,500
1986	10,000

The accumulated earnings credit will be increased to a minimum of $250,000 beginning in 1982. This measure will allow small businesses to accumulate this amount in earnings without penalty for nonpayment of dividends.

The last-in, first-out (LIFO) inventory method rules are somewhat simplified under the Act as an inducement to small businesses to adopt this system of accounting for their inventories.

The Treasury is barred from issuing fringe benefit regulations until after December 31, 1983.

Incentive stock options are available once again to help attract and retain qualified executives.

For 1982 only, the limitation on the allowable bad debt reserve for commercial banks using the percentage method will be increased from 0.6 to 1.0 percent.

CONCLUSION

Historically, significant cuts in business taxes have led to a noticeable surge in business investment spending. If President Reagan's tax cuts are similarly effective, they will contribute to renewed growth and strength in the nation's economy.

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RESEARCH NOTES

EDITOR'S NOTE: The idea for our newest column, RESEARCH NOTES, was borne of the realization that we often receive manuscripts on specialized topics that, while not appropriate for publication as a major article in the LBR, do report findings that would be of interest to at least some of our readers. By publishing one-two paragraph summaries of the research projects that these manuscripts represent, as well as of other completed or on-going research activities, we hope to further the overall "information sharing" goal of the LBR.

1981 Tax Act Likely to Lower Housing Stock

Recent changes in federal tax laws to (1) increase the tax depreciation allowance on rental housing and nonresidential capital and (2) reduce the maximum tax rate on unearned income are likely to have a long-run detrimental impact on the stock of housing in the United States, according to a recent study entitled "The Impacts on Capital Allocation of Some Aspects of the Economic Recovery Tax Act of 1981" by James D. Shilling, instructor of finance at LSU and Patric H. Hendershott, professor of real estate and holder of the John W. Galbreath Chair in Real Estate at Ohio State University.

Hendershott and Shilling developed and used a simulation model to measure the effect of the tax changes on the distribution of a fixed capital stock among owner-occupied housing, rental housing, and nonresidential capital. They found that the Tax Act is likely to raise real, pretax interest rates by almost two percent, which will in turn reduce the stock of housing by eight percent and increase the stock of nonresidential capital by six percent. Furthermore, their model indicates that the stock of owner-occupied housing will be relatively unaffected as a result of a probable 1.5 percent decline in the home-ownership rate. Other findings of their study include (1) a decline in corporate profit taxes of 60 percent; (2) a rise in after-tax corporate earnings of 25 percent; and (3) an increase in retained earnings of 35 percent.

Interest Rate Cushion for Banks

The balance sheets of financial institutions can be insulated from the harmful effects of interest rate movements, explains David M. Cordell, assistant professor of finance at LSU in "Commercial Bank Spread Management: A Duration Approach." Using a mathematical approach, Cordell demonstrates that a balance sheet can be restated in terms of discounted value to determine the real net worth of the institution and create a hedge to immunize the institution from rate changes.

The approach reduces risk by increasing real earnings stability and diminishes the need for high capital ratios, Dr. Cordell found. Additional advantages of this "duration immunization strategy" for financial institutions include the increased freedom to pursue an asset portfolio which will improve bank earnings, and the improved ability to pursue a desired financial structure and dividend policy. By using this approach a bank does not have to rely as heavily on floating rate loans, which transfer the interest rate risk from the lender to the borrower. This has the additional benefit of allowing the bank to increase its income by charging a premium above the expected average floating rate to those customers who want to reduce their risk by borrowing at fixed rates.

Developing Countries Need Help on Energy and Aid to Grow in the 1980s, World Bank Says

The world's industrial countries must cut down on their fossil fuel consumption and increase their aid to developing countries if the world's poor are to be better off in the 1980s, says the World Bank in its *World Development Report 1981*. The most urgent purpose of economic development is to further the struggle against poverty, the report says. It recommends that the rich countries increase the level of their imports from poor countries, avoid protective trade policies, conserve energy and move to alternative energy sources, support assistance for energy production in the developing countries, and increase aid to poor countries.

With increased help from industrial countries, a four percent annual growth rate in the rich countries, and slowly rising oil prices, the incomes of the developing countries will be able to grow 3.3 percent per year during the 1980s, according to the report. The annual growth in income of the developing world slowed down from a level of 3.5 percent in the 1960s, to 2.7 percent in the 1970s. The report concludes that if the industrial countries experience a 1970s-style recession or if loans and aid to poor countries dry up, then this growth could drop to 2.2 percent for the decade of the 1980s. □

IN APPRECIATION

The **Louisiana Business Review**, a quarterly publication of the Division of Research in the College of Business Administration at Louisiana State University, is dedicated to providing worthwhile and timely information on local, state and national economic developments of interest to members of the Louisiana business and government communities. This objective is being achieved by presenting high quality, readable articles written by knowledgeable representatives from business, government and academia. The Division would like to express its sincere appreciation to the following companies whose valuable contributions have made this publication possible:

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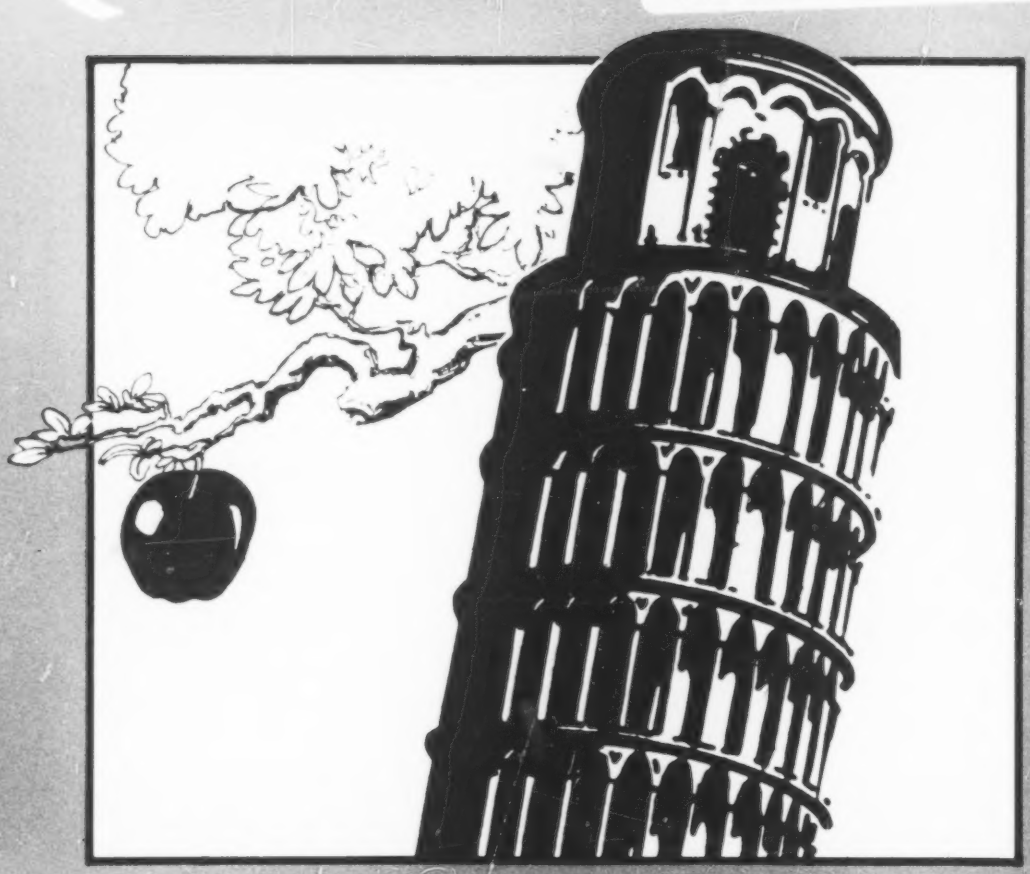

Working: Challenges in the '80s Part I

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LETTER FROM THE EDITORIAL BOARD

As the Winter 1982 edition of the *Louisiana Business Review* goes to press, both the national and the Louisiana economy are undergoing a recession. At times like these, attention is increasingly focused on the labor sector of the economy. This may occur, in part, because both the written and the visual media seem to be filled with bad news about the labor market. For example, in January 1982 Louisiana's unemployment rate stood at 9.6 percent, its highest level in more than a decade. This statistic implies that during January, 177,600 members of Louisiana's labor force were seeking employment, but could not find a job.

Those who study the economy recognize that such recessionary periods are simply normal parts of business cycles. There are, however, other labor market issues that are more permanent in nature that are matters of concern. For example, the success of President Reagan's tax legislation depends crucially on whether or not people will respond to the lower tax rates by working significantly more. Similarly, the President's ability to bring government spending under control will depend heavily on his success in arresting the rapid growth in the nation's social security, welfare, medicare and retirement expenditures, all of which directly impinge on the labor sector.

During the 1970s, the labor market in Louisiana underwent a number of important developments. Between 1970 and 1980, the state's civilian labor force grew by a remarkable 48 percent, compared to a much slower 27 percent at the national level. During this same period, significant employment growth occurred in such industrial sectors as oil and gas exploration, retail trade, and state and local government, while other sectors, such as the textile, furniture, and paper industries, suffered a reduction in employment.

A number of important legislative battles pertaining to the labor market were also launched in Louisiana in the 1970s. In the middle of the decade, the Louisiana legislature passed a right to work law, as well as other significant legislation in the areas of pension reform, public employee unions, and taxation. The state's prevailing wage law remains a very controversial topic even today, and will no doubt become an object of legislative debate during the early 1980s.

For these reasons, both the Winter and Spring 1982 issues of the *LBR* are devoted to examining some of the key labor topics of interest to the nation and Louisiana today. In this issue John Duffy examines the social security system which affects more workers than any other government program. His article, "Social Security and the Reagan Administration: Promises, Promises . . . ," lays out the nature of the current problems in OASDHI, considers the impact of Reaganomics on the program, and reviews other suggested reforms in this important area.

In "Public Employee Unions: A New Resurgence?," David Grigsby describes recent trends in public employee unions both nationally and in Louisiana. He finds that the growth in the unionization of state and local employees did slow down during the 1970s in Louisiana. This trend may reverse itself in the years ahead, however, he concludes, as President Reagan's "New Federalism" program begins to impact on the demand for state and local public services.

Four years ago, the *LBR* published an article revealing some of the preliminary evidence on the economic impact of right to work laws. In "Right to Work in Louisiana: Weighing the Issues and the Evidence," Robert Brown updates his earlier study with more recent data and studies which shed light on how the issues of worker freedom, the degree of unionization, the incidence of work stoppages, and economic growth have been affected in Louisiana since the reinstatement of the state's right to work law in 1976.

This issue's FORUM column offers a contrasting view on Louisiana's environmental policy to that of B. L. Kedia and Stephen Young published in the Summer 1981 edition of the *LBR*. In "Louisiana's Environmental Policy, Setting the Record Straight," Fred Loy, Executive Vice-President of the Louisiana Chemical Association, presents evidence indicating why he believes that the state is *not* "soft" on pollution and why such a view does not reflect present realities.

In the past few months, as the price of oil has fallen, an item of increasing concern has been the deteriorating fiscal position of Louisiana's state government. It has been suggested that the solution to this dilemma is to convert the state's natural gas severance tax to a percentage of value basis from its present per unit rate. Two leading participants in this emerging legislative battle, Representative Jock Scott of Alexandria and Mr. Ed Steimel of the Louisiana Association of Business and Industry, present the pros and cons of this timely issue in a SPECIAL REPORT on page 19 .

Finally, BOOK CORNER makes its debut in this issue of the *LBR* with reviews of three new books on labor and employment topics that we hope will be an interest to our readers. In addition, Milt Ternberg, the business librarian at LSU's Middleton Library, who will be a regular contributor to this department, provides an annotated list of recent government documents on this edition's main theme.

—The Editorial Board □

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The views and opinions expressed in articles appearing in this publication are those of the individual authors, and do not necessarily represent those of the *LBR* Editorial Board or Louisiana State University, Baton Rouge.

The Editorial Board invites the submission of manuscripts, to be considered for publication in this quarterly. Style sheets for manuscripts and manuscript abstracts are available upon request. Comments and suggestions on any material appearing in the *LBR* are also welcome.

All communications and address changes should be sent to the editor, Louisiana Business Review, Division of Research, College of *Business Administration, Louisiana State University*, Baton Rouge, LA 70803, (504) 388-6645.

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BOOK CORNER

Will Reducing the Hours Employees Work Help Unemployment?

Work Sharing: Issues, Policy Options and Prospects by Fred Best (Kalamazoo, Michigan: The W. E. Upjohn Institute, 1981), 204 pp., $8.00, (hardcover), $5.00 (paperback).

As the rate of unemployment rises in today's economy, a book such as *Work Sharing* seems especially appropriate. Fred Best, of the California Employment Development Department, focuses in this book on how overall unemployment may be lessened by reducing the number of hours that employed workers labor.

The author bases his review of the work sharing concept on two premises: (1) that there is a certain amount of work to be done at a given point in time, and (2) that the best approach to lowering unemployment is to stimulate the creation of jobs by policies designed to increase aggregate demand and economic growth. He then evaluates several techniques that have been used to deal with unemployment. Income maintenance programs, which provide income to the unemployed, Best claims, are costly and fail to raise productivity. Public job creation programs, Best concludes, are also costly, and their productivity results are controversial. Best refrains from passing a final judgment on government employment subsidization programs which reimburse employers for many of their labor costs (hiring, training, and so forth). He does offer some reservations about the success of this program, however.

Work sharing is not a new concept, but Best reviews it in a greater depth here than has been done elsewhere. The idea is seen as having some potential for increasing productivity, while decreasing unemployment. For the concept to work, state or federal legislation is necessary to help defray its implementation costs. Short-time compensation programs, which reimburse employees for part of the time they are away from work, and voluntary trade-offs by employees of less pay for less time worked are, Best argues, the two most viable mechanisms for establishing the work sharing concept.

The book is technical in nature and would be of most interest to strategy level managers, economists, union officials, and legislators. Food for thought is provided in abundance. Many questions, unfortunately, are left unanswered.

—O. Jeff Harris

The Minimum Wage Controversy

The Impact of the Minimum Wage on Regional Labor Markets by Ronald J. Krumm (Washington, D.C.: American Enterprise Institute, 1981), 93 pp., $4.25 (paperback).

The traditional approach in examining minimum wage legislation is to assess the impact of changes in the level of the minimum wage on employment opportunities. Ronald Krumm, a research fellow in economics at the University of Chicago, does consider this issue in his book, but his major emphasis is on the extent of coverage of minimum wage laws.

Since minimum wages were first implemented in the United States in 1938, coverage under the legislation has been expanded from 11 million workers, or 20 percent of the labor force, primarily in the mining and manufacturing industries, to over 60 million workers, or 62 percent of the total labor force, in nearly all sectors of the economy. Krumm's main point is that regardless of how the minimum wage is set, its impact will be small as long as there is a large sector of the labor force uncovered by the law. Low-skilled workers who are made unemployable by a rising minimum wage level (because the minimum wage reaches a level higher than the value of their hourly output) will move to the uncovered sector. It is only when minimum wage coverage expands to the point where the uncovered sector becomes incapable of absorbing these workers, that minimum wages have serious disemployment effects among unskilled workers. Under these conditions, the only alternative for these workers is to migrate to high cost-of-living areas where they remain employable, despite their low productivity.

This book is the latest in a series of studies published by the American Enterprise Institute, which is designed to make the analysis of current economic issues available to policy makers and the general public. In attempting to reach this audience, Krumm has restricted all mathematical and statistical issues to nonessential appendices. Nonetheless, his exposition relies extensively on graphical analysis; so one who is not willing to work carefully through these graphs will have to accept much of what he concludes as an article of faith.

—Richard Ault

Job Placement for Minority Professional Women

Stepping Up: Placing Minority Women Into Managerial and Professional Jobs by Robert W. Glover, Paula S. Greenfield, Allan King, and Paulette Norvel (Salt Lake City, Utah: Olympus Publishing Company, 1979), 105 pp., $4.99 (paperback).

Employment discrimination has been a major topic of interest among labor economists, personnel administrators, and civil rights leaders. Robert Glover—of the Lyndon B. Johnson School of Public Affairs at the University of Texas at Austin—, Paula Greenfield—of the U.S. Labor Department's Women's Bureau—, Allan King—a labor and human resource economist at the University of Texas at Austin—, and Paulette Norvel—National Director of the Minority Women Employment Program—, pool their talents to examine this issue of mutual concern in *Stepping Up: Placing Minority Women Into Managerial and Professional Jobs*. Their book describes (1) the economic status of, as well as the myths surrounding, the college-educated minority woman, (2) the nature of employment discrimination in professional and white collar labor markets, and (3) the activities of the Minority Women Employment Program (MWEP) in the United States between 1972 and 1978.

Glover, et al. argue that the roots of employment practices that are unfair to and adversely affect minority females go beyond an individual employer's sexual or racial prejudices. They claim that the uneven employment progress of minority women may be attributed largely to *institutional* forms of discrimination, such as the imperfections in a company's recruitment, selection, hiring and promotion practices. As a result, a well-qualified minority female is often denied a job and entry into a particular occupational group, that would have been mutually beneficial to both herself and the hiring firm.

The MWEP was established by Congress in 1972 to help overcome these institutional forms of discrimination and to make qualified minority women more available to private industry. By providing services such as job development, application recruitment and screening, and job interview and test preparation, the MWEP has been successful in reducing employment discrimination, Glover, et al. conclude, in a manner that is acceptable to both employers and minority women applicants.

Stepping Up is well written and should be of interest to those concerned with fair employment and affirmative action issues and programs. The authors offer ample documentation for the issues they analyze with data relating to the general problems of minority female workers, as well as the impact of the MWEP on minority female employment. To illustrate their points, Glover, et al. discuss the experiences of specific minority women who have been successfully placed through the Minority Women Employment Program.

—Terry Leap

Recent Publications of the Bureau of Labor Statistics (BLS), U.S. Department of Labor

• *Employment and Unemployment: A Report on 1980*, Special Labor Force Report 244 (Washington, D.C.: U.S. Government Printing Office, 1981), free.

The 1980 recession had a negative impact on employment in the housing and automobile industries and caused overall unemployment in the United States to rise faster than at any other time since 1974-75. The construction industry was hit the hardest with a 14.2 percent unemployment rate for the year. This BLS publication contains analytical and statistical summaries of employment and unemployment in 1980. A series of sixty-five tables presents detailed data on how the work force fared during this recessionary year.

• *Perspectives on Working Women: A Databook*, Bulletin 2080 (Washington, D.C.: U.S. Government Printing Office, 1980), $5.00 (stock no. 029-001-02527-1).

The participation of women in the U.S. labor force has increased significantly since World War II. This publication presents a statistical overview of employed women since 1950. Included are data on labor force, employment and unemployment, work experience, marital and family status, school enrollment and education, earnings and income, race and hispanic origin, and various other employment characteristics of women. Data are provided through 1980, but may be updated by using other BLS publications, including *Employment and Earnings* and the *Monthly Labor Review*.

• *Productivity Measures for Selected Industries, 1954-1979*, Bulletin 2093 (Washington, D.C.: U.S. Government Printing Office, 1981), $7.50 (stock no. 029-001-02572-6)

The decline in U.S. labor productivity has been an important concern to economists and managers alike. This publication traces employee output in specific industries for twenty-five years. Heavily oriented toward the mining and manufacturing industries, it provides indexes of output per hour, output per employee, output, employee hours, and total number of employees, by industry. The introduction reviews the industries that have experienced either significant increases or decreases in productivity during the last two and one half decades. A useful bibliography on productivity is included.

Ordering information: Copies of Employment and Unemployment *may be obtained by writing to the U.S. Bureau of Labor Statistics, 555 Griffin Square Building, Dallas, TX 75202. The other two reports may be ordered from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.*

—Milt Ternberg

JEFF HARRIS and TERRY LEAP are both associate professors of management, RICHARD AULT is an instructor of economics and MILT TERNBERG is the business librarian at Louisiana State University, Baton Rouge. □

John Duffy, Jr.

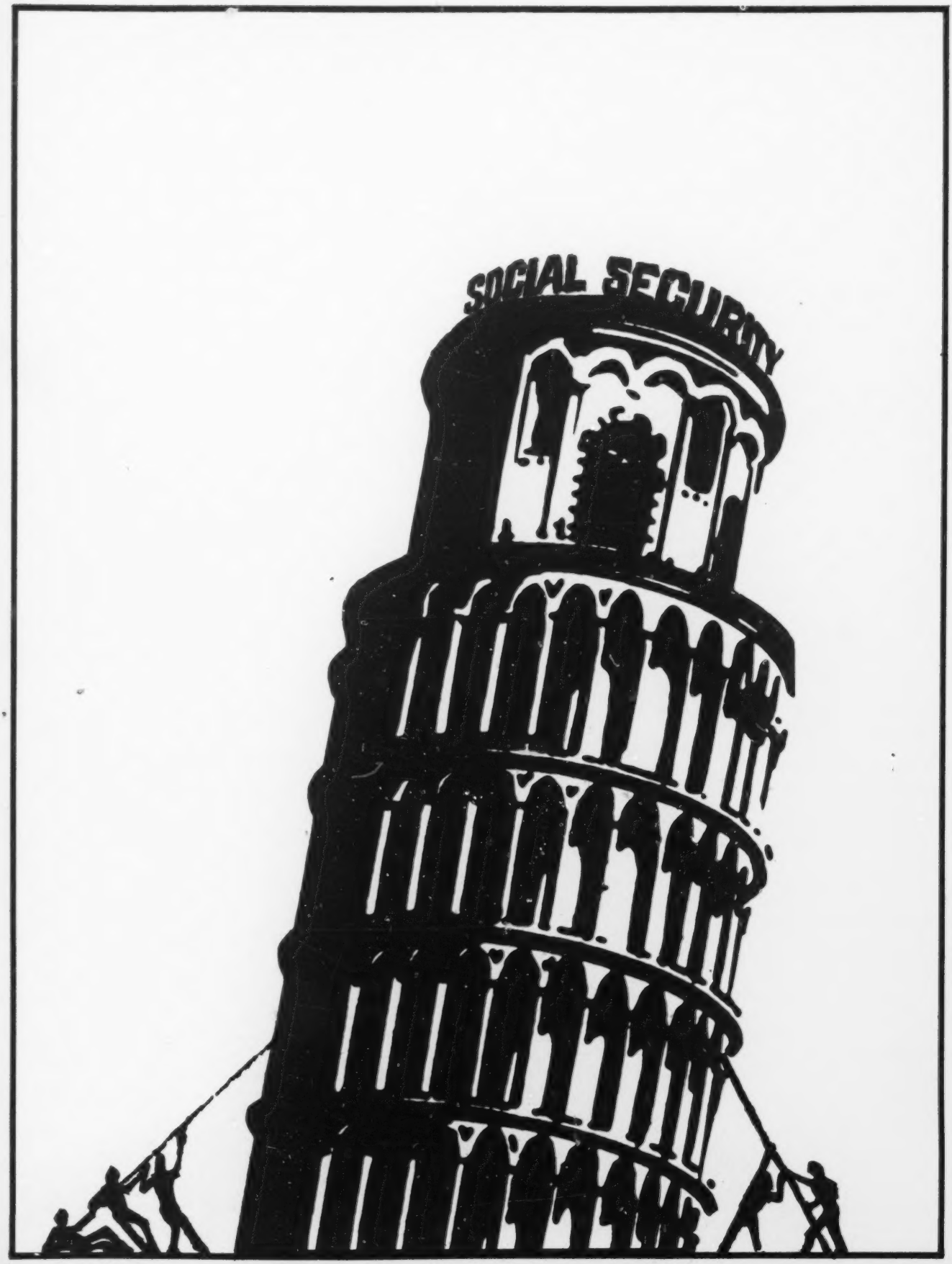
Social Security and The Reagan Administration: Promises, Promises . . .

The social security program affects more Americans than any other government program. During the last seven years, increasing concern over the ability of the social security system to pay for its future obligations, prompted congressional action to protect the program in 1977, as well as a running debate as to how the system might best be reformed. This article examines President Reagan's recent social security reform proposals, the financial status of the system, and some of the alternative reform measures that have been proposed by members of Congress and others.

Perhaps no other single issue has stimulated more controversy during the past year than the question of exactly how the Reagan Administration will reestablish fiscally responsible control over the federal government's social security program. The promises and proposals emanating from the White House, as well as their dissection and adaptation by the U.S. Congress, have appeared as mixed signals to an understandably confused public. Today, the social security program consists of three distinct sub-programs: (1) Old-Age and Survivors Insurance (OASI)—the retirement or pension portion of social security; (2) Disbility Insurance (DI)—the disabled worker benefit package; and (3) Medicare (HI)—the health care protection plan for the elderly. Together, these three comprise the total OASDHI package, which affects more Americans than any other government program.

The original legislation which established the U.S. Social Security Administration was enacted in August 1935. At that time, the program was conceived as a retirement insurance plan that would be tied closely to the amount of payroll taxes that a worker and his emplover contributed to the system. Throughout the 1950s and 1960s, however, the U.S. Congress set a pattern of systematically broadening the scope of the social security program. For example, from 1950 to 1975, the number of individuals receiving Old-Age and Survivor's Insurance benefits alone, increased from about 3.5 million to about 27.6 million. Furthermore, the current dollar value of those benefits increased from about $1 billion in 1950 to about $58.9 billion in 1975.[1] So major was this expansion in the size and value of benefit coverage, that the nature of the original social security program was completely transformed. By the mid-1970s, the constraints of the troubled U.S. economy forced congressional representatives to confront the realities of the ballooning social security obligations that had been created.

In the September and October 1979 issues of this *Review*,[2] the author analyzed the growth of the social security system, the impact of the 1977 amendments on the system and the future financial problems of the system. At that time, it was clear that effective long-range solutions for the problems in the U.S. social security program must be implemented to avoid an increasingly unbearable


SOCIAL SECURITY

cost on future generations. This article (1) summarizes the results of President Reagan's recent efforts at reforming the social security system; (2) examines the current and future financial status of the system; (3) analyzes the impact of the President's economic policies on the system; and (4) mentions some of the alternative proposals that have been offered to ameliorate the financial problems of the nation's social security package.

RECENT REFORM EFFORTS

Presidential Promises, Proposals and . . . Frustrations

During the 1980 presidential campaign, candidate Ronald Reagan promised that, if elected, he would exclude the Social Security Administration from his initial budget cutting proposals. Shortly after his inauguration, however, he reversed this position by proposing to (1) tighten the eligibility requirements for disability benefits and (2) terminate the student, lump sum and minimum benefits of the present social security program.

The President's social security savings proposals caused a loud public outcry, particularly that to eliminate the minimum benefit clause which guarantees a minimum level of social security income to retired and disabled individuals whose contributions have been insufficient to otherwise earn themselves coverage. A strong wave of congressional opposition emerged in May 1981, when the President offered a long-range plan to ensure the solvency of the social security program. This strategy included (1) a substantial benefit penalty for early retirement, (2) a gradual reduction in the formula for calculating future retirees' benefits, so that benefit levels would drop by about 10 percent starting in 1987, (3) a three-month delay in the automatic cost-of-living benefit increases scheduled for July 1981, (4) the removal of the earnings ceiling for workers 65 years and older, and (5) a reduction in social security benefits for "double-dippers," or government employees already covered by another pension plan.

In spite of the President's success with most of his other budget cutting initiatives, his long-range blueprint to safeguard the social security system floundered in Congress and created great public concern. By late September 1981, the President again had reversed his course and withdrew his support from his long-range plan. Like President Carter before him, the new President has found that reforming the social security system is a very thorny and politically dangerous enterprise.

Congressional Reaction and Adaptation

Although Congress voted down the President's five major long-range reforms, it did approve some budget cuts last year, including some of the President's earlier proposals, that will save the social security system $2 billion in 1982 and $23.7 billion by 1986.[3] These provisions include (1) terminating benefits to widows whose children have reached the age of 16 instead of 18, (2) requiring eligible 62 year olds to wait one extra month to qualify for benefits, (3) rounding benefit computations to the lowest dollar and lowest dime, and (4) restricting the payment of lump sum and disability benefits. Congress also passed a measure "to reallocate the system's tax resources among its three funds" and to allow interfund borrowing in order to avert a cash flow problem in any single one of them.[4]

The 1977 amendments to the Social Security Act, by substantially raising the contribution rates and benefit base of the previous legislation, were designed to solve the system's short-term financial difficulties. At the end of the 1970s, as it became apparent that a sluggish U.S. economy and high inflation rates were eroding the revenue base anticipated by the designers of the 1977 legislation, Congress began to make cutbacks in the nation's disability programs. Based on its record for 1981, it is apparent that Congress will continue to make minor changes in the social security system to avert future short-term financial difficulties.

FINANCIAL STATUS

Current Problems

During 1980, 35 million Americans received $120.5 billion in Old-Age, Survivors and Disability Insurance (OASDI).[5] This benefit outflow caused a $3.8 billion reduction in the OASDI trust funds. Despite the actual and scheduled increases in total social security payroll taxes for 1981 and 1982 (see Table 1) there is concern that by late 1982, the OASDI trust funds will be insufficient to continue paying benefits. This concern is what prompted Congress to pass legislation allowing interfund borrowing among social security's three subprograms.

Currently, the trust fund for the Medicare or hospital insurance (HI)

TABLE 1

Social Security Payroll Tax Schedule Contribution Rates (Percent of Taxable Earnings) Payable by Employers and Employees, Each, by Program[1]

Calendar Year	Old-Age and Survivors Insurance (OASI)	Disability Insurance (DI)	Medicare (HI)	Total
1977	4.375	0.575	0.900	5.850
1981	4.700	0.650	1.300	6.650
1982-1984	4.575	0.825	1.300	6.700
1985	4.750	0.950	1.350	7.050
1986-1989	4.750	0.950	1.450	7.150
1990 & later	5.100	1.100	1.450	7.650

[1]For self-employed, OASDI (Old-Age and Survivors Insurance and Disability Insurance combined) top rates are about 1½ times the rates for employees, and HI tax rates are the same as for employees.

Source: U.S., Department of Health, Education and Welfare, Social Security Administration, *1979 Annual Report of Board of Trustees of Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds*, (Washington, D.C., April 1979), p. 8., and U.S., Department of Health and Human Services, Social Security Administration, *Summary of the 1981 Annual Reports of the Social Security Board of Trustees*, (Washington, D.C., 6 July 1981), p. 2.

portion of social security is the healthiest of the three trust funds. According to the 1981 hospital insurance trustees' report, this particular fund should receive sufficient income to support its own expenditures for the next eight to ten years. The projections for 1991-2006, however, indicate that the flow of income into this trust fund during that period, will *not* be enough to meet its Medicare benefit payment obligations.[6]

The short-run (1980s) financing difficulties of the social security system have been caused by negative developments in the nation's economy during 1979 and 1980. Rising production costs and high unemployment have caused prices to rise faster than wages. Therefore, even with the OASDI payroll tax increases, social security benefits increases that are based on the consumer price index have increased more rapidly than social security revenues. For example, in 1980, income accruing to the three trust funds rose by 13 percent, but total social security benefit payments increased by 16 percent.[7]

Short-Run Outlook

Social security statisticians base their short- and long-run financial estimates of the demand for social security benefits versus the supply of funds to pay for those benefits, on certain varying assumptions about the level of the nation's gross national product, unemployment, inflation, fertility and other factors. Table 2 compares three of the cases of economic and demographic assumptions used for 1981, 1985, 1995, 2005 and beyond. The program's overall financial health is represented by a "fund ratio," which expresses the total OASDHI fund as a percentage of the annual outflow of benefit payments and is based upon these varying assumptions. Figure 1 compares the "optimistic," "intermediate" and "pessimistic" social security fund ratio projections over the decade of the 1980s.

By using this method to illustrate the short-run financing picture for social security, it can be seen that the individual fund ratios must stay above 15 percent in order to avoid cash flow problems in the system. While social security benefit payments are mailed out in the early part of each month, income flows into the system are

TABLE 2

Economic and Demographic Assumptions for Social Security Financing, 1981

Economic or Demographic Factor	Comparative Assumptions, By Year[1]											
	1981			1985			1995			2005-beyond		
	Optimistic	Intermediate	Pessimistic	Optimistic	Intermediate	Pessimistic	Optimistic	Intermediate	Pessimistic	Optimistic	Intermediate	Pessimistic
Real GNP Growth[2] (Percent change in average annual from previous year)	1.7	1.1	– 0.1	4.4	2.9	4.4	3.2	2.4	n.a.	3.5	2.7	n.a.
Wages Growth in Covered Employment[3] (Percent change in average annual from previous year)	10.6	10.2	10.6	6.8	8.1	10.4	4.5	5.5	n.a.	4.5	5.5	n.a.
Consumer Price Index (Percent change in average annual from previous year)	10.7	11.1	12.8	4.1	7.4	9.7	2.0	4.0	n.a.	2.0	4.0	n.a.
Inpatient Hospital Costs[4] (Percent change in average annual from previous year)	15.6	15.6	15.6	11.4	14.4	15.6	6.8	10.0	n.a.	6.3	9.3	n.a.
Annual Unemployment Rate	7.7	7.8	8.3	5.7	6.8	8.0	4.5	5.4	n.a.	4.0	5.0	n.a.
Total Fertility Rate[5]	1.9	1.9	1.8	2.0	1.9	1.8	2.1	2.0	n.a.	2.4	2.1	n.a.

n.a.—not available.

[1]The assumptions in this table represent only three of the range of five cases reported used by the Social Security Administration in its projections for the OASDI and HI programs in its 1981 trustees' report. The "Intermediate" case statistics stated here, are those for the original "Intermediate B Assumptions." The "Intermediate A" and "Worst-Case" assumptions have been omitted from this table.

[2]Gross National Product (the total output of goods and services) expressed in constant dollars. The percentage increase in real GNP is assumed to change after the year 2005. The values for the year 2055 are 3.4, and 2.1 percent for the optimistic, and intermediate B assumptions, respectively.

[3]"Covered employment" refers to all workers covered by the social security system.

[4]Includes hospital costs for all patients, not just those covered under Medicare (HI). Figures shown for "2005-beyond" are for 2005.

[5]The number of children who would be born to a woman in her lifetime if she were to experience the age-specific birth rates assumed and were to survive the entire child-bearing period.

Source: Same as Table 1, p. 21.

spread over the entire month. If the balance-on-hand (or fund ratio) in any of the three social security trust funds drops below the level that enables the payment of monthly benefits, monthly benefit checks cannot be mailed out. The mailing of benefit checks would be disrupted, for example, by a fund ratio of 12-14 percent.

From the three projections depicted in Figure 1, it is evident that even the most favorable one will barely suffice until 1985, when the scheduled payroll tax increase will improve the inflow-outflow problems of the system. The other two less favorable projections indicate that the system will be unable to make benefit payments during the 1980s. Thus, even with interfund borrowing, should there be any significant downturn in the economy, the social security system will require further congressional action to see it through the 1980s.

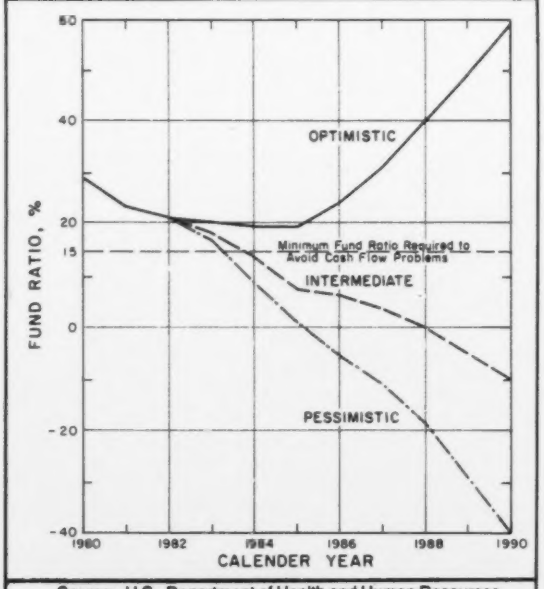
Long-Run Projections

Figure 2 shows the projected long-run outflow of benefit payments for the old-age, survivors and disability parts of social security, as a percentage of the "taxable payroll" over the period 1981-2055. These three projections are also based upon the assumptions detailed in Table 2. One hundred percent of the taxable payroll is equal to that *portion* of the income of all workers covered by social security that is actually taxable under the system. The scheduled social security tax rate in Figure 2, then, represents the amount that the social security program can expect to receive from the taxable payroll in a given year. By comparing the scheduled social security tax rate (*inflow* into the system) with the three long-range OASDI benefit payment projections (*outflow* from the system) depicted in Figure 2, one can estimate how financially solvent the system will be over the years ahead. Specifically, only as long as the benefit payment projections fall below the scheduled tax rate, will the system remain solvent.

In general, the long-run projections in Figure 2 show an improvement in the social security system's financial health from 1985 until about 2015. This thirty year span of financial stability for the social security program will result from the social security tax increases scheduled to take effect in 1985 and 1986, that were included in the 1977 amendments to the Social Security Act. Thereafter, as the "baby boom" generation begins to retire, OASDI tax rates will be inadequate and result in a significant fund deficit under all but the most optimistic projection.[8]

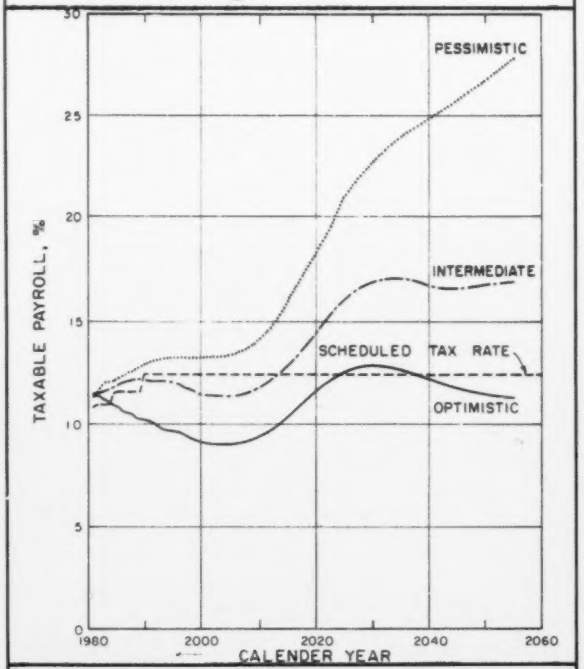
The primary factor creating the long-run financing problems of the social security system is demographic. The post-World War II baby boom generation should begin to retire around 2010. By then, the average life span in the United States is expected to be longer than it is today. These two factors, coupled with the nation's relatively low fertility rates of the 1960s and 1970s, will lead to a situation where fewer and fewer workers will be forced to support a swelling retired population. The 1981 trustees' report of the Social Security Administration states that, according to its intermediate-level assump-

FIGURE 1
Estimated Fund Ratios Under Combined OASI, DI and HI Programs



Source: U.S., Department of Health and Human Resources, Social Security Administration, *Summary of the 1981 Annual Reports of the Social Security Board of Trustees*, (Washington, D.C., 6 July 1981), p. 12.

FIGURE 2
Estimated OASDI Outgo and Tax Rates, 1981-2055



Source: Same as Figure 1, p. 16.

tions, by 2030 the worker-to-social security beneficiary ratio will be two-to-one.[9]

REAGANOMICS AND SOCIAL SECURITY

The President's "supply-side" economic policies should weaken the social security system's financial posture in the short-run, but help to strengthen it in the long-run. For example, under Reagan's current economic policies, inflation *is* being brought under control. Nevertheless, the nation's rate of economic growth has slowed down and the unemployment rate is threatening to reach its second highest level since the Depression. As unemployment rises and the economy slows down, the taxable base for social security diminishes, resulting in less short-run revenue available for paying current benefits. These short-run "pains" associated with the President's economic policies can only aggravate the social security system's short-run cash flow problems projected for 1982-1984.

If the President's long-range approach to economic problem solving is successful, the long-run financing strain on the social security system that has been projected should begin to ease after 1984. The long-run financing problem probably cannot be cured by a strong economy alone, however. For example, the only long-range projection that would keep the system functioning as currently legislated, is based upon the optimistic assumptions of a consumer price index increase of 2 percent, an unemployment rate of 4.5 percent and an increasing fertility rate, for 1995 and beyond (see Table 2 and Figure 2).

ALTERNATIVE PROPOSALS FOR REFORM

The complexity of the Social Security Act and its numerous amendments make the system difficult to reform. The serious financial problems of the system have prompted, nonetheless, a number of alternative reform proposals to those of the President, over the last year. Senator Lawton Chiles of Florida has introduced a bill that would gradually raise the retirement age in the United States to 68.[10] Economist Martin Feldstein, of Harvard, has authored a "2 percent solution," which would reduce the automatic cost-of-living increase (11.2 percent in 1981) in social security benefits by 2 percent each year. Feldstein has estimated that his proposal can save the Social Security Administration $15 billion between 1982 and 1985, alone.[11] Other proposals range from changing the way initial benefits are calculated,[12] to separating the welfare and pension functions of the social security system.[13] Finally, economist Milton Friedman has even proposed turning the social security system completely over to the private sector.[14]

Reform proposals must have bi-partisan support to enable their passage in Congress. Development of support for reforming the social security system will not be easy on the heels of the strong bi-partisan congressional coalitian that expanded the program's benefits every two years during the 1950s and 1960s. Yet, the 1980 Republican electoral victory and President Reagan's social security initiatives indicate the time for serious reform may be here. The reluctance of the Congress to approve immediate benefit cutbacks (e.g., elimination of the minimum benefit provisions) in 1981 leads this author to conclude that a reform package consisting of *gradual* benefit reductions and a rise in the nation's required retirement age, might be more palatable to U.S. legislators.

CONCLUSION

The social security system is facing a number of potential short-run cash flow problems in the early 1980s and a long-run financial crisis of unbelievable proportions after 2015. In 1979, A. Haeworth Robertson, former chief actuary for the Social Security Administration, estimated that the implicit obligations of his administration to current workers and retirees was $5.6 trillion.[15] This haunting actuarial nightmare needs immediate attention. Although the Reagan administration made little headway in reforming social security in 1981, the need for reform is apparent, the nation's patience with promises has run out, and the time for action is growing short.

[1]Norman B. True and Barbara A. Fields. *The Future of Private Pension Plans* (Washington, D.C.: American Enterprise Institute, 1976), p. 66.

[2]John Duffy, Jr., "Social Security: A Time of Reassessment and Hard Decisions (Part I)," *Louisiana Business Review* (September 1979): 206; ----- "Social Security: A Time of Reassessment and Hard Decisions (Part II)," *Louisiana Business Review* (October 1979): 2-5.

[3]Christopher Cannell, "New Budget Hides Social Security Cuts," *Baton Rouge Sunday Advocate*, 23 August 1981, p. 22A.

[4]Robert W. Merry, "Social Security Stop-Gap Bill is Passed By Senate Unit as Hopes Dim for Overhaul," *Wall Street Journal*, 25 September 1981, p. 2.

[5]U.S., Department of Health and Human Services, Social Security Administration, *Summary of the 1981 Annual Reports of the Social Security Board of Trustees*, (Washington, D.C., 6 July 1981), p. 4.

[6]U.S., Department of Health and Human Services, Social Security Administration, *1981 Annual Report of the Board of Trustees of the Federal Hospital Insurance Trust Fund*, (Washington, D.C.: 2 July 1981), p. 40.

[7]*Summary of the 1981 Annual Reports . . .*, p. 5.

[8]*Ibid.*, p. 13.

[9]*Ibid.*, p. 15.

[10]John J. Fialka, "Man Who Helped Get Social Security Started Now Strives to Save It," *Wall Street Journal*, 22 September 1981, p. 21.

[11]"Backing Down on Budget Cuts," *Time*, 12 October 1981, p. 42.

[12]Harry Anderson and Mary Hager, "The Crisis in Social Security," *Newsweek*, 1 June 1981, p. 27.

[13]Susan Lee, "Social Security: Separating Welfare and Annuity," *Wall Street Journal*, 2 October 1981, p. 22.

[14]*Ibid.*

[15]Anderson and Hager, p. 25.

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Fred Loy

FORUM

Louisiana's Environmental Policy, Setting the Record Straight

It requires ages to destroy a popular opinion.—Voltaire

An opinion survey of foreign executives' views on Louisiana's pollution enforcement seems to confirm Voltaire's observation.[1] The survey, part of a report on foreign direct investment by Drs. B. L. Kedia and Stephen Young, appeared in the Summer 1981 issue of this *Review*.[2] According to the survey, many executives of foreign companies believe Louisiana is "soft" on pollution. The Louisiana Chemical Association feels the business executives expressing this belief are extolling popular myth and not taking a hard look at present realities.

In a telephone conversation with a representative of the Louisiana Chemical Association, Dr. Kedia explained that all of the executives surveyed for his study were managers in Louisiana. Of the thirty-seven companies responding, twenty-one were chemical producers and sixteen were other types of manufacturers. The executives representing these companies generally felt that the state is very reasonable in its environmental policy. Nevertheless, among these responses there was the *underlying* implication that the state is "soft" on pollution. Dr. Kedia suggested that the sixteen non-chemical producing firms in the group may perceive Louisiana's environmental policies as lax because they do not have to deal with environmental issues as frequently as do chemical producers.

LOUISIANA'S CURRENT ENVIRONMENTAL POSTURE

It may be true that Louisiana did not become aware of its environmental problems as quickly as some other states. One reason is that environmental problems in Louisiana have been less serious than those in many other industrialized states. Industry developed in Louisiana years after states in the Northeast and Midwest were booming. When development finally moved south, Louisiana benefited from advances in plant technology. Consequently, plants built in Louisiana pollute less than their aging counterparts do in the North.

Traditional perceptions of an unprogressive Louisiana may be indicated in the Kedia and Young survey, but they are not a true assessment of the state's present environmental posture. Louisiana now has some of the toughest environmental laws in the nation. Furthermore, these laws are being enforced. The Louisiana Chemical Association does not dispute the findings of the survey, although the responses were a surprise.

One statement in Drs. Kedia's and Young's article is disturbing, however. Remarking that seven firms felt Louisiana is lagging behind in enforcement, the authors observed, "The fact that, conversely, only three of thirty-seven companies responding complained that the laws were unreasonable, speaks for itself." This statement implies that the laws must be soft because only three companies complained about them. If a majority of companies had complained that the laws were unreasonable, would the implication have been that the laws were adequate?

KEY ENVIRONMENTAL ISSUES

Those with a perception of an unprogressive Louisiana need to be made aware of the facts. The four main environmental issues facing Louisiana today, which Drs. Kedia and Young analyzed in their article and which will now be addressed by this author, include: (1) legislation and enforcement of pollution laws, (2) hazardous waste disposal, (3) state and local concern about environmental issues, and (4) the desirability of attracting nonpolluting industries to the state.

Legislation and Enforcement

Louisiana's legislators have been taking the state's environmental problem seriously for years. During the past four state legislative sessions, the Natural Resources Committee has heard testimony on hundreds of pieces of environmental legislation. Most of this legislation has been supported by the Louisiana chemical industry. A few of the major new laws approved in recent years include the:

- *Hazardous Waste Control Act (1978)*—one of the nation's first pieces of comprehensive hazardous waste legislation to be enacted by a state;

- *Environmental Protection; Merger and Consolidation of State Functions Act (1979)*—a comprehensive piece of reorganization legislation, that consolidates and strengthens the state's laws with respect to air pollution control, water quality, hazardous and solid waste management, and nuclear energy;

- *Hazardous Waste; Environmental Affairs Jurisdiction and Enforcement Act (1980)*—a new legislative instrument dealing with environmental emergencies and abandoned waste sites; and

- *Hazardous Waste Containers, Tampering or Discharge Act (1981)*,

- *Underground Injection of Hazardous Wastes; and Control and Penalties Act (1981)*, and

- *Enforcement Affairs; Increased Penalties for Violations Act (1981)*—a series of detailed improvements of existing environmental laws to aid in their administration and enforcement.

In this four year period, no other state in the nation has had a comparable record of paying such important and systematic attention to the development of environmental legislation. *Enforcement* of this legislation is receiving the same degree of attention in Louisiana. Industries violating these laws are not getting away with a "slap on the hand." For example, according to Bill Deville, of the Office of Environmental Affairs in Louisiana's Department of Natural Resources, a spill in the Mississippi River last year cost one company $308,000 in fines, the largest fine levied for an environmental incident in the state's history.

Hazardous Waste Disposal

Secondly, although the state's 1978 hazardous waste legislation provided a period of leeway for implementing any new hazardous waste regulations until October 1981, Louisiana moved ahead of the federal government and most other states in developing an effective system for hazardous waste control. The state's new set of regulations, which went into effect on August 1, 1979, includes the overseeing of industrial wastes from their point of generation through their points of transportation, storage, treatment and disposal.

Louisiana's hazardous waste program is proving to be effective and has been praised highly by the U.S. Environmental Protection Agency (EPA) and other pertinent organizations. In December 1980, Louisiana's hazardous waste program became one of the first five in the nation to receive a "Phase I Interim State Hazardous Waste Program Authorization" from the EPA. This authorization required a favorable review by the EPA of the state's entire hazardous waste control program. Following their 1980 mid-year review of the performance of state hazardous waste programs, the EPA representatives noted that the Louisiana program could well serve as a model for the nation. In a comprehensive nationwide study by the Association of State and Territorial Solid Waste Management Officials, Louisiana's hazardous waste program was selected as the most outstanding one in the nation.

State and Local Concern

Thirdly, state and local concern about environmental issues is quite evident in Louisiana. The members of the Louisiana Chemical Association, for example, which represents eighty-three chemical plants throughout the state, have taken a responsible attitude toward the environment and have worked effectively with state officials to see that environmental programs are carried out. In 1981 alone, the chemical industry's fee contributions for issuing and maintaining permits totaled almost $3 million.[3] This money helps support the state's environmental programs. From 1974 to 1979, the chemical industry by itself spent well over $1.3 billion on pollution abatement equipment and machinery.[4]

The state's industrial producers also manage as much of their waste as possible on plant property under carefully controlled conditions. Of the 126 million tons of waste produced in Louisiana in 1980, only 0.3 percent, or 415,000 tons, was disposed of offsite.[5]

Contrary to what Drs. Kedia and Young imply in their article, individuals at the local level are not ignoring Louisiana's pollution problems either. Scarcely a day goes by without some mention in the media of concerned citizens and local public officials debating over orphan waste sites. Citizens routinely testify before state House and Senate environmental committees. Many local industry councils and ecology groups are actively creating public awareness of environmental issues by promoting communication between citizens, the state, and industry.

Attracting Non-Polluting Industries

Finally, the Louisiana Chemical Association agrees with Drs. Kedia and Young that Louisiana needs to attract more diverse and labor-intensive industries, especially in the north where unemployment is extremely high. A critical point must be made, however. There is no such thing as a non-polluting industry. All industries pollute, and the chemical industry is only one of seventeen which produces hazardous wastes.

CONCLUSION

The economic benefits of the chemical industry to the state of Louisiana are well known, but few realize the economic impact the industry has nationally. Louisiana produces twenty-three percent of the nation's petrochemicals. Automobile, textile, furniture, soap and detergent, appliance, paint, synthetic rubber manufacturers and many others are directly dependent on Louisiana's chemicals.

The Louisiana chemical industry believes Louisiana can maintain this economic power without sacrificing its environment. The legislature and the public are concerned and are not ignoring the environment. Industry and state government are taking the responsibility to ensure the environment is protected. Louisiana is *not* soft on pollution, and it's time to set the record straight.

[1]The author wishes to acknowledge the assistance of the Louisiana Department of Natural Resources and the House Natural Resources Committee in the preparation of this article.

[2]B. L. Kedia and Stephen Young, "Foreign Direct Investment in Louisiana: Employment and Environmental Impact," *Louisiana Business Review* (Summer 1981): 12-18.

[3]Louisiana, Department of Natural Resources, Office of Environmental Affairs, Computer printouts, October 1981.

[4]U.S., Department of Commerce, Bureau of the Census, Industry Division, "Pollution Abatement Expenditures," *Current Industrial Reports*, MA-200, (1974): 27, 62, -----, (1975): 27, 58; -----, (1976): 35, 68; -----, (1977): 22, 60; -----, (1978): 13, 29; -----, (1979): 32, 42.

[5]Figures compiled from: Louisiana, Department of Natural Resources, Office of Environmental Affairs, Hazardous Waste Division, Computer printouts, January, 1982.

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David W. Grigsby

Public Employee Unions: A New Resurgence?

After a period of rapid expansion in the 1960s, the unionization of public employees has slowed down despite a continuing rise in public sector employment. Labor unrest among public sector workers, however, as typified by last summer's federal air traffic controllers' strike, has resulted in a renewed interest in public sector labor problems. This article examines trends in public employee unions at the state and local level, and discusses the impact of collective bargaining on decision making in those areas.

This past summer's air traffic controller's strike, which resulted in the dismissal of 12,000 federal employees, has prompted public officials at the state and local level to reexamine their policies regarding unionization. The details of these policies are likely to become increasingly significant as budget restraints grow tighter, and state and local government workers may begin to feel pressured into using more militant tactics in pressing their demands for higher wages and benefits.

This article (1) analyzes recent trends in the growth of public sector employment, as well as in the unionization of state and local government employees for both the United States and Louisiana in particular, (2) examines some of the major problems of public sector unionism and (3) discusses the adoption of a collective bargaining law for public employees by the state of Louisiana as a method for dealing with those problems.

PUBLIC SECTOR EMPLOYMENT GROWTH AND UNIONIZATION

Over the past twenty years, state and local government has been one of the most rapidly growing sectors of employment in the United States. Full-time employment by states, municipalities, special districts and other local government units now accounts for over ten million jobs, or in other words, 11.5 percent of the nonagricultural work force. This represents a 120 percent increase in the number of these jobs since 1960.[1] The increase has been due, in part, to the pressure for more and better public services, as well as to the extra manpower needed to meet federally-mandated standards for certain programs, such as those in law enforcement.

This rapid rise in public sector employment has made state and local government employee groups attractive targets for union organizing efforts. Throughout the 1960s and early 1970s these efforts met with a great deal of success, and consequently, state and local government employees around the country were rapidly unionized. During the period from 1962 to 1974, for example, public employee unions gained over three million members from a membership base of only 1.6 million.[2] Present figures indicate, however, that this unionization trend has slowed down despite continuing growth in public sector employment.

Recent Trends at the National Level

According to the most recent figures available, summarized in Table 1, public sector employment at the state and local level is still growing quite rapidly. During the period 1972-1979, the number of full-time state government employees rose by 22.8 percent and the number of full-time local government employees, by 17.4 percent. It is likely that this trend will slow down, however, due to the recent cutbacks in federal spending by the Reagan Administration. Yet, the need to assume responsibility for services formerly provided by federal payrolls may mean that state and local governments will not be able to trim their payrolls as much than otherwise would have been the case.

Although the number of people employed full-time by state and local governments was increasing throughout the 1970s, the percentage of that group belonging to labor unions was actually decreasing. Among state government employees, the percentage of those unionized fell from 40.7 percent in 1972 to 38.7 percent in 1979, and among local government employees, from 53.5 to 51.4 percent during the same period. Overall, today labor unions no longer hold a majority of state and local government employees in their membership as they did in 1972. Although the absolute number of labor union members is greater today than it was in 1972, the percentage of participation of public employees in these organizations is decidedly down in the United States as a whole.

Reasons for this slowdown in the unionization rate may be found in three areas. First of all, attitudinal changes seem to be taking place. For example, according to a 1979 U.S. Labor Department study, employees throughout the country today are less confident in the ability of labor unions to improve their working conditions.[3] Second, recent failures by labor unions to win wage gains in the face of "hard line" bargaining by public officials are cooling organization efforts. Third, many new positions being added to state and local government payrolls are in the technical and clerical fields, which traditionally

TABLE 1

State and Local Government Employees and the Extent of Unionization in the United States, 1972 and 1979 (Employees in Thousands)

Level of Government	All Employees			Unionized Employees				
	1972	1979	Percent change, 1972-1979	1972 Number	1972 Percent of All Employees	1979 Number	1979 Percent of All Employees	Percent change in number, 1972-1979
State	2,312	2,839	22.8	942	40.7	1,098	38.7	16.6
Local	6,266	7,354	17.4	3,351	53.5	3,783	51.4	12.9
Total	8,578	10,193	18.8	4,293	50.0	4,881	47.9	13.7

Source: U.S., Department of Commerce, Bureau of the Census, *Labor-Management Relations in State and Local Government,* (Washington, D.C.: Government Printing Office, 1972), p. 5; -----, (1979), p. 7.

TABLE 2

State and Local Government Employment and the Extent of Unionization in Louisiana, 1972 and 1979

Level of Government	All Employees			Unionized Employees				
	1972	1979	Percent change, 1972-1979	1972 Number	1972 Percent of All Employees	1979 Number	1979 Percent of All Employees	Percent change in number 1972-1979
State	55,849	78,134	39.9	10,804	19.3	12,180	15.6	12.7
Local	108,312	136,601	26.1	36,010	33.2	34,085	25.0	−5.3
Total	164,161	214,735	30.8	46,814	28.5	46,265	21.6	−1.2

Source: Same as for Table 1, (1972), p. 20; (1979), p. 23.

have been difficult to unionize since employees in these areas tend to identify more closely with the values of management than with those of labor.[4]

Recent Trends in Louisiana

State and local government employment rose faster in Louisiana than in the rest of the United States during the period 1972-1979. As the data in Table 2 show, the number of full-time state government employees in Louisiana increased from 55,849 to 78,134, or by 39.9 percent, during this seven year period. In contrast, only 12.7 percent more full-time state government employees were unionized in 1979 than in 1972, in Louisiana. Consequently, the overall percentage of all state government workers unionized in Louisiana *fell* from 19.3 percent to 15.6 percent during this same time span.

Among Louisiana's local government employees, unions actually lost membership over the last decade. Again, referring to Table 2, it can be seen that the level of local government employment rose from 108,312 in 1972 to 136,601 in 1979, or by 26.1 percent. The number of unionized local government employees, however, actually fell from 36,010 to 34,083 during this period. As a result, by 1979, labor unions could claim only 25.0 percent of Louisiana's local government employees among their members, as opposed to 33.2 percent in 1972.

The most rapidly growing areas of employment at the state level were in hospitals, education other than teachers (e.g., secretaries, administrators, maintenance workers), state police, and "all others" (mainly clerical-technical). Organized labor made substantial gains among employees in education and police work, but lost considerable strength among state highway employees and hospital workers.

Underlying Causes

At the state level. Contributing to the shifts in organized labor among state government employees from 1972 to 1979 were a number of factors. First of all, the adoption of the state's right-to-work law in 1976, while not affecting public employees directly, nevertheless may have influenced attitudes toward unions among public sector workers. A second factor may be the lack of stability within state government labor organizations. A principal organizing union for these employees, the American Federation of State, County, and Municipal Employees, AFL-CIO (AFSCME), went through a series of extensive administrative reorganizations during this time. Teachers' unions, on the other hand, were led by the National Education Association and mounted a successful organizing drive among teachers in state schools, accounting for a fourfold increase in the percentage of teachers organized there. A third factor was the relative stability in the earning power of the salaries of state government employees during the period. Employees whose earnings are staying abreast of inflation are less likely to turn to organized labor. A fourth factor is one already mentioned: the relative mix of jobs in the state government. White collar positions were added to the state government's payrolls in greater proportions, and these employees are less likely to identify with organized labor. Louisiana labor organizations have nevertheless targeted the state government's clerical and technical employees for renewed organizing efforts in the future, and should be expected to actively pursue this growing part of the work force well into the 1980s.

At the local level. On the local government level, jobs in education, public welfare, highways, police protection, and "all others" grew at a fairly rapid rate. Organized labor increased its membership percentage in only two areas, however. These were education (other than teachers), and highways. Even there the gains were somewhat modest. The largest loss of strength was among local police (Table 3).

Reasons for the apparent loss of union strength at the local government level parallel those for state government employment: passage of the right to work law, reorganization within AFSCME, and the relatively stable earning power of the salaries of local government employees.

The strength of labor unions varies considerably among the seven metropolitan areas in the state. Baton Rouge, New Orleans and Lake Charles are considered relatively strong union cities in terms of local government labor organizations. Alexandria and Monroe also have sizeable union representation among local government employees. Local government employees in Shreveport and Lafayette have remained largely non-union, however. Shreveport's local government workers rejected an organizing campaign as

recently as May of 1980.

Besides AFSCME, several other labor organizations are active among state and local government employee groups in Louisiana. The International Brotherhood of Teamsters represents public works employees in Baton Rouge and school bus drivers in New Orleans. Police and firefighters in a number of municipalities are represented by their protective associations; such as, the International Association of Firefighters and the Fraternal Order of Police. Professional Associations also bargain on behalf of public employees. Among these are the National Education Association, the American Federation of Teachers and the American Nursing Association.

PROBLEMS IN PUBLIC SECTOR UNIONISM

Perhaps the two most pressing problems concerning the unionization of state and local government employees today are the related, but separate, issues of (1) the legality and procedural difficulties of collective bargaining in the public sector, and (2) the legality of public worker strikes. The question of the legal status of collective bargaining between union members and management has been a particularly troublesome one. While comprehensive federal legislation deals with collective bargaining among *private* sector employees and employees of the federal government, the employees of state and local governments are not covered by federal law. As a result, the regulation of collective bargaining among these workers is left to the states. Today, twenty-one states in the nation have laws dealing with collective bargaining for state and local government employees. The remaining twenty-nine states, among which is Louisiana, leave the question of collective bargaining for public workers in a kind of "legal limbo."[5] While *public* officials in these states often argue that the absence of a collective bargaining statute prohibits the practice, since collective bargaining is not expressly provided for, *union* officials argue that collective bargaining is an acceptable practice since it is not expressly prohibited by law.

Other problems confront the practice of public sector collective bargaining. For instance, the public officials with whom the union seeks to bargain rarely have the power to grant wage demands. When these officials do have the legal power to determine employee wages, the usual market tests of profitability versus costs are not as clear-cut, since the services of public employees often have no private-sector equivalent or close substitutes with which managers can compare wages.[6]

The question of the legality of public employee strikes is perhaps the most troublesome question of all. The strike is considered by many to be an unacceptable means of resolving disputes in the public sector, especially where the striking employees are considered vital to the public's

TABLE 3

State and Local Government Employees and the Extent of Unionization in Louisiana by Function, 1972 and 1979

Level of Government and Function	Total Employment			Unionized		
	1972 (number)	1979 (number)	Percent Change, 1972-1979	1972 (percent)	1979 (percent)	Percent Change, 1972-1979
State						
Education-teachers	5,703	6,232	9.3	8.2	33.3	25.1
Education-others	9,447	13,591	43.8	9.6	17.2	7.6
Highways	7,315	7,489	2.4	54.7	22.5	−32.2
Public welfare	4,067	4,141	1.8	11.7	10.4	− 1.3
Hospitals	14,655	21,775	48.6	24.7	13.6	−11.1
Police protection	973	1,301	33.7	50.7	57.1	6.4
All other	13,698	23,605	72.3	6.1	8.2	2.1
State total	55,849	78,134	39.9	19.3	15.6	− 3.7
Local						
Education-teachers	43,203	52,898	22.4	56.6	42.6	−14.0
Education-others	19,425	26,423	36.0	17.4	21.0	3.6
Highways	5,137	6,071	18.2	9.7	12.3	2.6
Public welfare	454	616	36.0	22.9	n.a.	n.a.
Hospitals	5,809	6,588	13.4	2.0	n.a.	n.a.
Police protection	7,375	8,769	18.9	41.1	17.9	−23.2
Fire protection	3,184	3,357	5.4	58.4	56.6	− 1.8
All others	20,537	27,755	35.1	10.5	3.1	− 7.4
Local total	108,312	136,601	26.1	33.2	25.0	− 8.2
Total State and Local	164,161	214,735	30.8	28.5	21.6	− 6.9

n.a.—not available

Source: Same as for Table 2.

safety, health, sanitation, or transportation. The public sector strike carries with it an extremely high potential for disruption, and is characteristically intended as a different type of persuasion device than its private sector counterpart.

A strike in the private sector is primarily used by unionized workers as an *economic* tool. By striking and disrupting a company's provision of a flow of goods and services, the private sector union aims to impose high costs on its employer (e.g., short-run revenue loss and the loss of long-term contracts). The union then hopes that these costs, which tend to go on as long as the strike continues, will persuade the employer to settle the dispute in favor of the union's demands as quickly as possible. The public sector strike, on the other hand, can actually save the employer money (e.g., since tax revenues usually continue, while labor costs are reduced due to the strike). The persuasive effect of a public sector strike is primarily *political*. The union hopes to disrupt services to the extent that the ensuing public outcry will force officials to accede to the union's demands.[7] Most states having comprehensive collective bargaining laws for public employees have recognized these problems, and have, therefore, outlawed such strikes. Some have replaced the strike tool with third party resolution systems, such as the provision for binding arbitration in the event of contract disputes. These provisions, wherever they are in place, have greatly reduced the incidence of illegal strikes by public employees.

A COLLECTIVE BARGAINING LAW FOR PUBLIC EMPLOYEES?

Comprehensive collective bargaining laws covering state and local employees have been adopted by twenty-one other states. Several possible benefits might accrue from the adoption of such a law in Louisiana. First of all, "recognition strikes" (strikes that are called to persuade employers to recognize and bargain with union representatives) could be virtually eliminated with provisions for an orderly election procedure for union representation and recognition. Second, specific guidelines could be included in the law which clearly spell out which areas of employees rights, wages and benefits are subject to bargaining and which are not. A well written law, in this case, could go far in preventing disputes over the scope of issues that unions have a right to press through collective negotiation. Last, and perhaps most important, a comprehensive bargaining law could provide for an alternative to costly strikes by public sector employees. For example, the law could require the bargaining public officials and union representatives to submit any deadlocked issues to binding arbitration by an impartial third party. This procedure has met with a great deal of success in a number of other states and localities throughout the United States, and is also in widespread use in Canada.[8]

There are a number of possible problems attendant to the adoption of a collective bargaining law for public employees in Louisiana, as well as elsewhere. State and local government employees might perceive that the passage of such a law signals that unionization is somehow being encouraged by state representatives. Since unions tend to be recognized whenever and wherever they have gained strength today, however, this may be a moot point. Perhaps the most serious difficulty lies in the removal of wage decisions from budgetary oversight. In order to carry out true collective bargaining, management must have the authority to grant wage demands. Since public officials who have that authority rarely have similar control over their own governmental unit's revenues (which are legally determined by tax laws), the usual process of balancing revenues and expenditures cannot be expected to work as efficiently.[9]

CONCLUSION

During the last decade, the United States as a whole and Louisiana in particular, witnessed a downward trend in the percentage of union membership among its state and local government employees. Whether or not this trend can be expected to continue is certainly open to question, however. As state and local revenues decrease due to tax cutting initiatives, the public employees affected by these measures may respond with growing militancy. The Reagan administration's proposed "New Federalism," or the return of many federal programs to state control, if it is adopted, on the other hand, may stimulate large increases in state and local government employment, and consequently, a new resurgence in the strength among public employee unions at those levels. Yet, the distinctions between private and public sector organized labor must be kept clear. The extent to which public policy is equipped to respond to the posture of state and local government employee unions over the next decade, may well determine how smooth the flow of the nation's public goods and services will be.

[1]U.S., Department of Labor, Bureau of Labor Statistics, *Employment and Earnings*, (Washington, D.C., August 1981), p. 37.

[2]Martin Estey, *The Unions*, 2d edition (New York: Harcourt, Brace, Jovanovich, 1976), p. 1.

[3]Thomas A. Kochan, "How American Workers View Labor Unions," *Monthly Labor Review* 102 (April 1979): 15-22.

[4]Everett M. Kassalow, "White-Collar Unions and the Work Humanization Movement," *Monthly Labor Review* 100 (May 1977): 9-13.

[5]Daniel Quinn Mills, *Labor-Management Relations* (New York: McGraw-Hill, 1978), pp. 357-359.

[6]Myron Lieberman, *Public-Sector Bargaining* (Lexington, Mass.: Lexington Books, 1980), pp. 24-27.

[7]H. L. Haber, "Factfinding with Binding Recommendations," *Monthly Labor Review* 96 (March 1973): 43-44.

[8]John C. Anderson, "Evaluating the Impact of Compulsory Arbitration: A Methodological Assessment," Paper presented at the 39th annual meeting of the Academy of Management, Atlanta, Georgia, 1979.

[9]Lieberman, pp. 56-58.

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SPECIAL REPORT

Louisiana's Natural Gas Severance Tax Conversion Debate

TO OUR READERS:

Today Louisiana is the largest producer of natural gas in the United States. In fact, the latest data available from the American Petroleum Institute reveals that in 1978 Louisiana was responsible for over 37 percent of all the natural gas produced in the country, and nearly 14 percent, in the world.

According to Bill Bailey, Vice-President of the Mid-Continent Oil and Gas Association in Baton Rouge, in 1979 Louisiana produced 7.2 trillion cubic feet of natural gas. Of that total, however, 4.7 trillion cubic feet were produced offshore in the federally regulated outer continental shelf zone of the state. Consequently, only 2.5 trillion cubic feet of natural gas were produced within the state's taxable jurisdiction. Only Texas ranks ahead of Louisiana in terms of its state-taxable natural gas production.

In essence, this non-renewable natural resource represents a valuable tax revenue source for the state. During the past year, a debate focusing on the method by which the state currently taxes its natural gas production has erupted among the members of Louisiana's state legislature and the business community. In an era of threatening energy shortages and economic uncertainty, the state cannot refrain from a close scrutiny of its budget sources as it sets its spending policies for the years ahead.

Given the importance of Louisiana's natural gas severance tax policy, the *Louisiana Business Review* asked two state leaders who represent the opposite sides of the present debate to each write a short position piece explaining his view. JOCK SCOTT, Louisiana's state representative from Alexandria and author of the state legislative proposal to convert the current gas severance tax from a volume to a percentage of value basis, presents his viewpoint on the following page. As chairman of the Louisiana House and Governmental Affairs Committee, Representative Scott has established a reputation as an active advocate of tax-cutting proposals and legislation. ED STEIMEL, president of the Louisiana Association of Business and Industry (LABI) and the chief lobbyist opposing Representative's Scott's proposal, explains his counter-viewpoint on page 21. As LABI's president, Mr. Steimel has come to be regarded as a leading spokesman on a variety of issues for the business community throughout Louisiana.

—The Editor

Jock Scott

SPECIAL REPORT

The Time Is Now

Louisiana's natural gas severance tax receipts have declined from $250 million in 1974 to an estimated $139 million for 1981. With a state budget now totaling $6 billion, the current tax represents a negligible revenue source. This situation has developed in the face of the nationwide rise in natural gas prices as federal price controls are gradually being lifted. To ignore this precipitous decline in tax revenues from natural gas is to squander Louisiana's most valuable natural resource.

CURRENT STATUS OF THE TAX

Louisiana's natural gas severance tax is 7 cents per mcf (thousands of cubic feet), regardless of the selling price of the gas. As is true in some other major gas producing states, the level of natural gas production in Louisiana has been falling in recent years, and is expected to continue.

In 1979, the state's gas tax collections represented 15 percent of the value of all the natural gas produced in Louisiana that year. Today, the comparable figure is only 5.3 percent. If this trend is allowed to continue, Louisiana's natural gas tax receipts are likely to fall to a percentage of value level between 1 and 1.5 percent.

As severance tax receipts drop, Louisiana effectively gives out-of-state consumers a tax break. In addition, the environmental cost of hydrocarbon production has placed a tremendous burden on Louisiana taxpayers. Is it too much to ask that all natural gas consumers pay their fair share of these costs?

TIME FOR CHANGE

A wise and conservative approach to resource management has been taken in other states. For example, Texas and Alaska have provided investment trusts for energy revenues to balance the negative impact on state tax receipts resulting from depleting energy resources. Consequently, taxes will not have to be increased to maintain the same level of public services in those states. Louisiana has implemented a similar plan to provide for a balanced flow of revenues during the federal deregulation of oil. Unless the state changes its method of levying its severance tax on natural gas, it will never realize any potential increase in tax revenues occurring from the deregulation of natural gas.

The plan proposed by this state representative would set the level of the tax at 5.3 percent of the average sales value of all natural gas sold in Louisiana during December of each year. It is hoped that this policy will freeze the tax at its present value and prevent its further decline.

ANSWERS TO OPPONENTS' ARGUMENTS

There are four major arguments forwarded by opponents to this natural gas severance tax conversion plan. Each one is addressed below.

- *If we assume Louisiana consumers are paying a higher price for gas while the interstate price is much lower, would Louisiana consumers pay a higher tax than out-of-state consumers?*

No! The tax would be 5.3 percent of the average of all natural gas sales in the state, but would be expressed as a fixed amount per mcf. As an example, the Louisiana Department of Revenue and Taxation has calculated the average price of natural gas sold in Louisiana, based on both intrastate and interstate sales, to be $1.30 per mcf. During the first year that the proposed plan would be enacted, the tax would probably continue to be about 7 cents per mcf (5.3 percent of $1.30). All consumers will be taxed at an identical rate per mcf.

- *Large industries in Louisiana using natural gas would not be competitive due to the higher tax and would close or move elsewhere.*

Louisiana has one of the lowest severance taxes on natural gas among the major gas producing states. The tax in Texas is 7.5 percent of value; in Oklahoma, 7 percent of value; and in Alaska, 10 percent of gross value or $.064 per mcf, whichever is greater. A rate of 5.3 percent would be lower than any of the rates in other gas producing states. Therefore, Louisiana's competitive tax edge for large industrial users would continue under the proposed plan.[1]

- *Conversion to a value tax would mean an added burden to energy consumers in Louisiana. Our utility rates would increase.*

Interstate pipelines supply over 90 percent of the state's residential demand for natural gas. These interstate systems have access to the relatively inexpensive 26 cents per mcf gas produced on Louisiana's federally controlled outer continental shelf. Louisiana's residential users of natural gas have far more to gain from the new tax revenues than they have to lose from the fractional price increase that would result from the proposed plan.

- *Conversion to a value tax would aggravate the present anti-energy state attitude in Congress.*

This argument rings hollow when one considers the level of taxation in other states. Admittedly, if taxes were raised to an unreasonable amount, an adverse reaction could be expected. Freezing the tax at its currently relatively low percentage of value equivalent rate of 5.3 percent would likely receive little attention in Congress.

CONCLUSION

Louisiana has a responsibility to assure its citizens that the state is benefiting from the billions of dollars of natural gas being extracted from its reserves and consumed throughout the country. For these reasons, the state can no longer delay in converting Louisiana's severance tax to a basis of value: the time is *now*.

[1] It should be noted that the competitive discrepancy between intrastate and interstate natural gas suppliers created by the provisions of the Natural Gas Policy Act will continue to exist whether or not Louisiana's severance tax is changed to a percentage of value basis. Under the Act, intrastate suppliers are only permitted to buy natural gas that is produced within non-federally controlled state zones. Interstate suppliers, however, are allowed to purchase gas from intrastate, federally controlled offshore and all other sources of interstate gas.

Ed Stelmel

SPECIAL REPORT

Hands Off Policy Best

The idea of having people in other states pay Louisiana's taxes sounds good. That is what the proposed plan to convert Louisiana's natural gas severance tax to a percentage of value basis is supposed to do. Nevertheless, the whole idea is based on the false premise that the vast majority of *taxable* natural gas produced in Louisiana is exported for use in other states. This just is not the case. The majority of that gas is consumed in Louisiana. Thus, the majority of any tax increase would fall on Louisiana consumers.

LOUISIANA'S TAXABLE GAS PRODUCTION

Many people have been misled by the fact that Louisiana is credited with producing over 7 trillion cubic feet of gas a year, of which the great majority is exported for consumption in other states. Most of that gas is produced in the federal offshore zone, however, and thus is *not* taxable by Louisiana. During the year ending June 20, 1981, less than 2.4 trillion cubic feet of gas was produced within Louisiana's taxable jurisdiction.

In calendar year 1980, between 1.25 and 1.30 trillion cubic feet of that taxable natural gas was sold for ultimate use in Louisiana. Thus, slightly more than half of the taxable gas produced in Louisiana is now sold and consumed within the state. Reduced to its simplest terms, today the natural gas severance tax represents a disguised sales tax, over half of which falls on Louisiana consumers.

ENERGY CRUNCH FOR LOUISIANA INDUSTRY

Because the Natural Gas Policy Act of 1978 worked against Louisiana's ability to gain access to most of the new gas being discovered, the state's utility and industrial companies have had difficulty in securing enough gas at affordable prices to continue operating. Only because there is currently a gas surplus in the nation, has Louisiana been able to continue meeting its natural gas needs. At present, 20 percent of Louisiana's gas is being secured from the surplus in the interstate market. This surplus is expected to disappear within two years, however. At that time, Louisiana industrial and utility companies will be cut off from this interstate supply since the Federal Energy Regulatory Commission gives out-of-state consumers the lowest priority in accessing natural gas produced within intrastate markets. The result will be that Louisiana utility companies will either have to make up the deficit by buying the higher-priced intrastate gas produced in deep wells (along the Tuscaloosa Trend) or curtail their operations.

The latter of these two options has already been taken by some of the state's larger industrial natural gas consumers. Indeed, due to rising energy costs, eight chemical plants —Kaiser, Consolidated Aluminum, Copolymer, Allemania, Hooker, C. F. Industries, CosMar and BASF Wyandotte—within the past several months have announced the closing of parts of their plants, thereby eliminating 2,000 permanent manufacturing jobs. This action will ultimately put 10,000 people out of work since each high-wage chemical job supports about four other jobs elsewhere in the state's economy.

It should be recalled that petrochemical manufacturing—whose very future now seems to be in jeopardy in Louisiana—makes up the largest segment of the state's manufacturing sector, employs about 50,000 workers, and pays its employees the highest wages of all Louisiana's manufacturing industries. Its curtailment would be disastrous to the state's economy.

Another important fact about this industry is that it spawns a huge construction industry workforce. For the last four years more than 9 percent of Louisiana's labor force has been employed by the construction industry. This figure compares to that of 4.5 percent for the nation.

IMPACT ON LOUISIANA HOUSEHOLDS

This is not all the damage an added natural gas severance tax would do to Louisiana. A more important political and economic consideration is what it will do to the electric and gas bills of every household in the state. Obviously, if the natural gas severance tax rate is converted to a percentage of value basis at its current level, there would be no increase in the state's household utility levels this year. But every year thereafter, there would be an increase in everyone's utility bill. Utility officials have testified that over the next three years utility bills in Louisiana on five systems[1] would rise by $102 million if this change in the state's severance tax policy is approved.

Nothing is adding faster to inflation today in Louisiana than utility costs. The natural gas severance tax conversion plan would increase this inflation factor.

CONCLUSION

What has been proposed is an idea that might have been attractive forty years ago. Forty years of governmental control and faulty decisions, however, have totally distorted the use, the price, the quantity and the availability of natural gas, the choiciest of all fuels. As a result, no one really knows what natural gas is worth, how long it will be available, what it can be used for, or what price it can command in the marketplace.

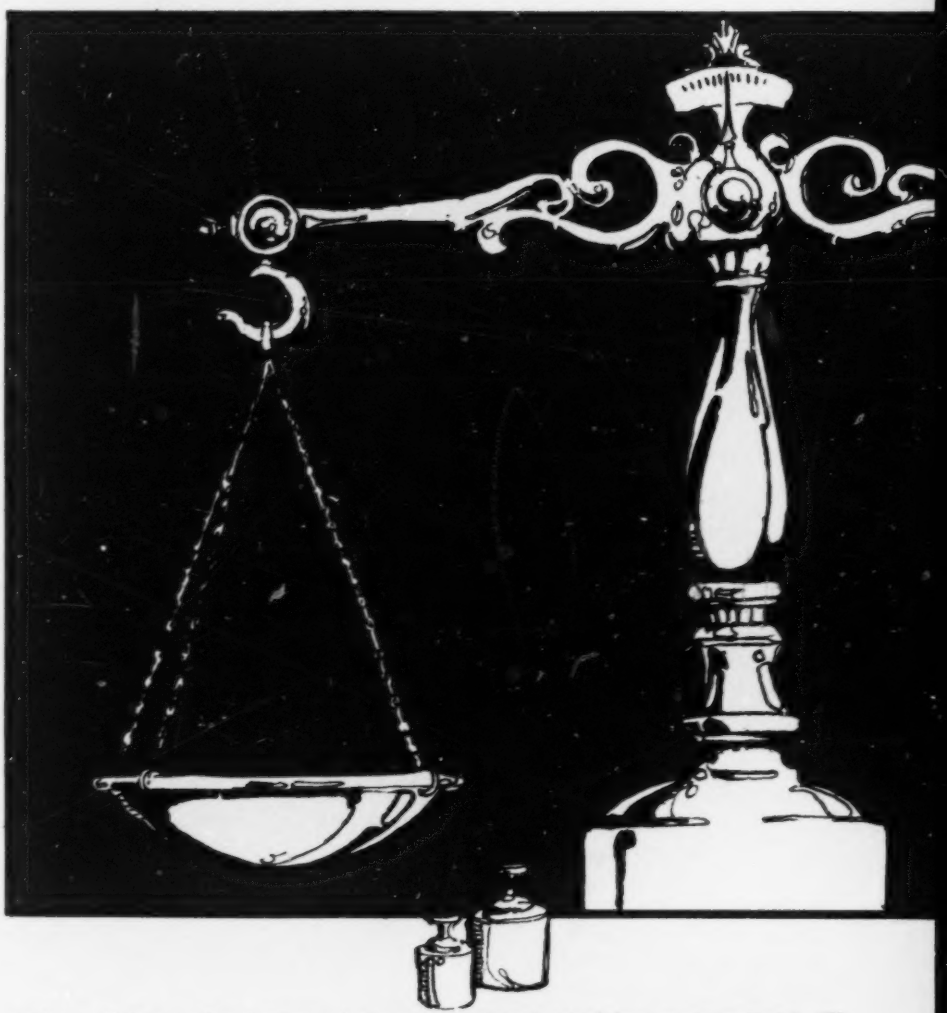
What natural gas needs most is for governmental decision makers to undo all the decisions they have made in the past and pledge to make no more in the future. Louisiana surely does not need to have its governmental officials add to this huge pile of bad governmental decisions on natural gas. A *hands off* policy is best.

[1]These systems are: Gulf States Utilities, Louisiana Power and Light, New Orleans Public Service, Central Louisiana Electric Company, and Southwest Electric Power. □

Robert Charles Brown

Right to Work in Louisiana: Weighing the Issues and the Evidence

Louisiana enacted a right to work law in 1976 after an extended public debate concerning the potential benefits and disadvantages of such legislation. After more than five years, the experience of Louisiana seems neither to offer an affirmation of the economic benefits of this measure, nor conclusive proof that the interests of the opponents of the law have been damaged.



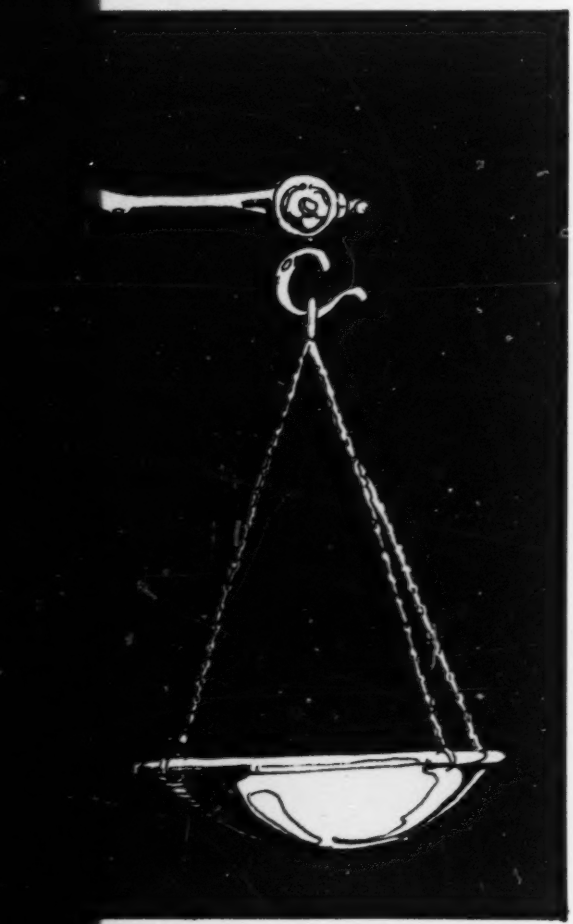
After a long, drawn-out and often bitter debate, the Louisiana legislature reestablished a right to work law in July 1976. This event marked a victory for organized business interests in the state that had mounted an intensive political campaign for passage of the legislation. To organized labor, the event signaled defeat of the equally intensive counter-campaign against reestablishment of the law, that it had mounted with its political allies. This article briefly reviews the central issues concerning right to work legislation, and examines the right to work controversy in Louisiana from the perspective of the state's five years of experience with the new law.

OVERVIEW

Essentially, right to work laws prohibit management and labor unions from negotiating a contract which requires union membership or the payment of union dues as a condition for the continution of employment, thereby outlawing an arrangement known as the "union shop." State legislatures were first authorized to establish right to work laws under section 14 (b) of the Labor-Management Relations Act (Taft-Hartley) of 1947. Four years ago this writer co-authored an article published in this *Review* which examined the legal background of the right to work law, the nature of the major issues of controversy surrounding the law, and the empirical evidence of the effects of such legislation.[1] The continuing conflict between proponents and opponents of right to work laws since that time has centered on four major areas of controversy: (1) whether or not right to work laws enhance or inhibit worker freedom, (2) whether or not right to work laws redistribute the relative advantage of the parties to a collective bargaining arrangement, (3) whether right to work laws increase or decrease the number of work stoppages due to labor-management conflicts, and (4) whether the presence or absence of a right to work law influences the potential for economic growth and industrial expansion in a particular location.

Aside from the worker freedom issue, which presents a philosophical paradox difficult to solve,[2] academic

research on the subject suggests that right to work laws make little or no scientifically measurable impact in the areas of controversy cited above.[3] Despite such findings, the supposed benefits and ill effects of right to work legislation continue to be debated in Louisiana by organized labor, the business community, politicians and the public.



RIGHT TO WORK IN LOUISIANA

Historical Background

Right to work was first enacted in Louisiana in 1954, but was repealed two years later after Earl Long assumed the state governorship. Thus, Louisiana and Indiana, alone, share the experience of having passed a right to work law and subsequently having repealed it. During the twenty year period from 1956 to 1976, Louisiana was the only Deep South state without such a law.[4] A right to work bill was introduced in most of the state's legislative sessions after 1956. Yet, because organized labor was very effective in representing its interests, each proposed bill always died quickly and relatively quietly. In the mid-1970s, business interests in Louisiana became better organized and began an active campaign for passage of a new right to work law. The two most prominent lobbyists and public spokesmen involved in the more recent right to work controversy were Ed Steimel, president of the then-newly formed Louisiana Association of Business and Industry (LABI), who led the fight for passage of the law, and Victor Bussie, president of the Louisiana AFL-CIO, who headed the opposition to Steimel's initiatives. An intensive period of political maneuvering, punctuated by peripheral acts of lawlessness, culminated with enactment of a new right to work law in Louisiana in the summer of 1976. But what of the supposed advantages and disadvantages of right to work legislation so staunchly predicted by its advocates and opponents? An examination of these arguments in light of Louisiana's five-year experience with its right to work law reveals that, while the key issues are still debated, the weight of the evidence does not clearly favor one side or the other.

Worker Freedom Paradox

Certainly one of the most emotionally charged issues involved in the right to work controversy is the issue of worker freedom regarding compulsory unionism. The essence of the question was well stated by both sides during the 1976 debate over passage of a right to work law for Louisiana. Victor Bussie summarized the opposition's argument in his statement:

> *If the workers in a plant organize . . . and spend their time and money to secure a contract with certain benefits—many times having to strike—why shouldn't anyone else who receives these hard-won benefits have to pay part of the cost?*[5]

The pro-right to work argument was put quite concisely in a political advertisement:

> *If you believe a person has a right to work a job without being forced to join a union, write or call your State Senator today.*[6]

The paradoxical nature of the question of worker freedom is apparent: while right to work laws protect the freedom of the individual worker to exercise his prerogative in joining or not joining a union, it does so at the price of denying management and unions the right to freely agree to a union shop even when it is mutually acceptable to both parties. In addition, right to work laws create the problem of "free riders," that is, individuals who receive the benefits of union bargaining concerning wages and working conditions, without joining the union or paying union dues. This problem, it is argued, places an undue burden on the union and its membership. Right to work advocates argue that the law protects workers from joining or contributing to organizations with which they may have political and philosophical differences. Unfortunately, Louisiana's experience with its right to work law has done nothing to shed light on the seemingly unresolvable philosophical problem of worker freedom.

Bargaining Advantage Question

Opponents of right to work legislation frequently contend that the real purpose of right to work laws is to break unions and lower wages, and that right to work legislation results in a redistribution of bargaining power away from unions and toward management. This, certainly, was one of the arguments put forth by organized labor during the debate that preceded passage of the Louisiana law. While advocates of the right to work law couched their arguments in terms other than this issue, it was clear that a strong anti-union sentiment was present in the ranks of the right to work proponents. This sentiment implied that if the new right to work law resulted in weakened unions and lower wages for Louisiana, business optimism and industrial expansion

would benefit in the state.

Trends in union size and strength. An examination of some basic labor force data reveals that no major changes seem to have been stimulated by the enactment of Louisiana's 1976 right to work law. Table 1 shows that union membership in Louisiana is clearly related to union membership in the United States as a whole. The number of union members in the United States increased from a level of about 19.8 million in 1970 to about 20.5 million in 1978 (the latest year for which complete federal data is available). Union membership as a percentage of nonagricultural employment, however, decreased from 27.9 to 23.6 percent during this same period, continuing its steady decline since the middle 1950s.

The data for Louisiana reflect these national trends. The size of union membership rose from 193 thousand in 1970, to 227 thousand in 1978. As in the entire United States, however, the growth in the number of nonagricultural employees proceeded at a faster rate than the growth in the size of union membership.

Thus, the percentage of union membership of total nonagricultural employment in Louisiana fell from 18.7 to 16.0 percent from 1970 to 1978. There is little, if any, difference to be noted in this trend before and after passage of Louisiana's right to work law in 1976. Thus is seems that the state's right to work law has made no significant difference in the relative amount of union strength in Louisiana.

It is useful to compare the size of union membership and the level of union strength in Louisiana with that of other right to work states, both before and after passage of the 1976 law. The percentage of those employed in nonagricultural jobs who were also members of unions among right to work states in 1972 ranged from 32.5 percent in Nevada to 7.7 percent in North Carolina. The percentage of union membership of nonagricultural employment in Louisiana, in 1972, was lower than that in ten states where right to work laws were in force. By 1978, two years after enactment of Louisiana's right to work legislation, only four other right to work states—Alabama with 19.2, Iowa with 19.2, Nevada with 22.9, and Tennessee with 17.7 percent—had a higher percentage of nonagricultural workers who belonged to unions.[7] Thus, union membership as a percentage of those employed in the nonagricultural sector declined less rapidly in Louisiana, even during the period of intense pressure that resulted in passage of the state's right to work law, than it did in most other states in the South, as well as in most other right to work states. These data imply that union strength has *not* suffered significantly as a result of Louisiana's right to work law.

Trends in wages. The same picture emerges from an examination of the trend in manufacturing wages in Louisiana during the 1970s. Table 2 shows that in current dollars the average weekly earnings of manufacturing production workers in Louisiana grew steadily from $155.66 in 1972, to $287.86 in 1979, with no change in that pattern after the passage of the 1976 right to work law. As in the case of union membership, comparison of this data to that of other southern, as well as other right to work, states is revealing. In 1972, Louisiana's average weekly earnings in manufacturing of $155.66 were the highest for the South. The average weekly earnings of manufacturing production workers in right to work states in 1972 only exceeded the level in Louisiana in two cases—Iowa ($174.15) and Nevada ($179.29). A third right to work state, Arizona, had average weekly earnings in manufacturing of $155.92 in 1972, just pennies more than the Louisiana average for that year. By 1979, Louisiana's average weekly manufacturing earnings of $287.86 exceeded not only that of all other southern states, but that of all other right to work states, as well. The clear implication of the data, here, is that the wage levels (at least those in the manufacturing sector) have *not* fallen as a result of Louisiana's right to work law.

Concern Over Work Stoppages

Newspaper accounts of the right to work debate in Louisiana confirm that, as in the right to work controversy nationwide, concern about the impact of right to work laws on the number of work stoppages, due to strikes and labor unrest, was a key issue. The advocates of right to work laws claim that passage of such laws puts pressure on organized labor to

TABLE 1

Union Membership for the United States and Louisiana, 1970-1978

Year	United States		Louisiana	
	Number of Union members (thousands)	Percent of Nonagricultural Employees	Number of Union members (thousands)	Percent of Nonagricultural Employees
1970	19,757	27.9	193	18.7
1972	19,789	26.9	189	16.9
1974	20,566	26.3	194	16.3
1976	19,874	25.0	213	16.2
1978	20,459	23.6	227	16.0

Source: U.S., Department of Labor, Bureau of Labor Statistics, *Handbook of Labor Statistics, 1980*, Bulletin 2070, (Washington, D.C., 1980), p. 414.

TABLE 2

Average Weekly Earnings of Manufacturing Production Workers in Louisiana in Current Dollars, 1972-1979

Year	Earnings
1972	$155.66
1973	164.77
1974	176.44
1975	208.86
1976	220.13
1977	240.35
1978	267.07
1979	287.86

Source: Same as for Table 1, p. 197.

TABLE 3

Work Stoppages and Nonagricultural Working Time Lost in the United States and Louisiana, 1972-1979

Year	Number of Work Stoppage Incidents		Percent of Nonagricultural Working Time Lost	
	United States	Louisiana	United States	Louisiana
1972	5010	46	.17	.06
1973	5353	54	.16	.17
1974	6074	69	.24	.26
1975	5031	49	.16	.18
1976	5648	46	.19	.05
1977	5506	26	.17	.04
1978	4230	38	.17	.07
1979	4827	36	.15	.13

Sources: Some as for Table 1, pp. 434-437; and U.S., Department of Labor, Bureau of Labor Statistics, *Analysis of Work Stoppages, 1979*, Bulletin 2092, (Washington, D.C., 1981), p. 48.

TABLE 4

Level and Growth of Nonagricultural Employment in Louisiana, 1972-1981

Year	Number of Nonagricultural Employees (thousands)	Percent Change From Previous Year
1972	1,128.6	—
1973	1,176.1	4
1974	1,220.8	4
1975	1,249.5	2
1976	1,314.4	5
1977	1,364.6	4
1978	1,463.5	7
1979	1,497.6	2
1980	1,572.2[a]	5
1981	1,632.7[b]	4

[a] Preliminary statistics, July 1980.
[b] Preliminary statistics, June 1981.

Sources: Same as for Table 1, p. 163; and U.S., Department of Labor, Bureau of Labor Statistics, *Employment and Earnings, September, 1981*, (Washington, D.C., 1981), p. 60.

reduce the number and duration of work stoppages. Several strikes, sometimes accompanied by violence, occurred throughout Louisiana in the late 1960s and early 1970s. These events may have been instrumental in bolstering the mid-1970s right to work movement.

Federal data on the incidence of work stoppages, and the resulting nonagricultural working time lost for both the United States and Louisiana during the 1970s, are shown in Table 3. These data show that there was a significant decline in the number of work stoppages, as well as in the percentage of nonagricultural working time lost due to these stoppages, in Louisiana, beginning in 1976, the year the state's right to work law was passed. It does not appear that this decline is related in any way to the national trend of that same period, when Louisiana data is compared to that of the United States. Although research in the United States has shown little, if any, relationship between the incidence of work stoppages and the existence of right to work laws, the case of Louisiana may be an exception. Ed Steimel believes that labor peace is a significant result of Louisiana's right to work law.[9] In this instance, it appears that right to work proponents perhaps have the weight of the preliminary evidence in their favor.

Industrial Expansion Argument

Perhaps the strongest and most attractive argument made by the advocates of the right to work law in Louisiana, prior to its passage, was that such a law would make it much easier for the state to attract industrial investment. The right to work advocates contended that this investment would stimulate economic growth, and thus promote employment in the private sector and raise income levels throughout the state. That such growth was desirable and needed in Louisiana before 1976, was a premise with which almost no one, including the leaders of organized labor, could be found to disagree. Indeed, organized labor was among the ranks of the most vocal advocates of industrial growth, but the role of a right to work law in promoting that growth was a matter of open dispute. Right to work advocates pointed to the rapid rates of economic growth in right to work states, chiefly those in the "sunbelt" region of the South and Southwest, and suggested that the prime reason Louisiana lagged behind in its growth rate was the absence of a right to work law. Right to work proponents generally cited a rise in employment as evidence of industrial development. Opponents contended that, since the most heavily industrialized states do not have right to work laws, and since it is primarily the less industrialized states that have enacted right to work legislation, it is only natural that right to work states tend to show more rapid advances in employment.

Perhaps of greater importance was the claim by right to work advocates that passage of right to work legislation would send a clear signal to the industrial community throughout the United States that organized labor did not hold the upper hand politically in Louisiana, and that the state had a pro-business political climate conducive to industrial expansion. Additionally, right to work supporters claimed that passage of a right to work law would remove the alleged disadvantage of Louisiana in relation to other southern and right to work states in the recruitment of industry.

Table 4 shows that the level of nonagricultural employment has advanced in Louisiana since 1972, although not at a steady rate. The greatest growth in employment seems to have occurred in 1977-78, as the boom in the petrochemical industry accelerated. Throughout this time span, the rate of unemployment in Louisiana remained fairly close to that of the entire United States, and exceeded the national average only in 1979.

Another indicator of economic growth, the level of per capita income, made significant gains during the 1970s. During the entire decade, per capita income in Louisiana rose faster than the national average, helping close the gap between average per

TABLE 5

Per Capita Income in the United States and Louisiana, 1972-1979

Year	Per Capita Income		
	United States	Louisiana	
	1972 Dollars	1972 Dollars	Percentage of U.S. Average
1970	4,209	3,258	77
1975	4,636	3,787	82
1979	5,331	4,579	86

Source: U.S., Department of Commerce, Bureau of the Census, *Statistical Abstract of the United States, 1980*, (Washington, D.C., 1980), p. 447.

capita income in Louisiana and the rest of the nation, as Table 5 reveals.

While economic progress has been made, right to work opponents point, with some justification, to the expanding petrochemical industry as the source of most of this growth, and retort that such growth would have occurred in an energy hungry nation, with or without passage of Louisiana's right to work law. South Louisiana is in the midst of an energy-based boom, they say, and this distorts an analysis of the industrial achievement of the state, as a whole. They further point to large areas of the northern part of the state, where incomes remain low, unemployment remains a problem, and evidence of industrialization since passage of the right to work law in 1976 remains limited. The Louisiana Association of Business and Industry, itself, noted that in 1980, over 81 percent of the state's total industrial expansion, or $1.1 billion, was tied to petrochemical projects.[10] Thus, the evidence for a significant industrial expansion in Louisiana triggered by the passage of its right to work law is cloudy, at best.

CONCLUSION

An overview of Louisiana's experience since the passage of its 1976 right to work legislation seems neither to confirm nor deny the predictions of either the law's opponents or proponents. Only in the area of work stoppages, which have decreased significantly in number since enactment of the 1976 law, do the pro-right to workers appear to be on solid ground. This evaluation simply confirms the findings of research in this area which suggest that right to work laws make no discernible difference in the relative strength of unions and the economic vitality of a particular area.

Why then, the continuing controversy over right to work laws? Both sides seem to see the right to work issue not only as a symbol of political power and influence, but also as a legal philosophy that does make a difference, even in the absence of conclusive evidence.

In Louisiana, right to work legislation continues to have widespread support among the populace. Public opinion polls by the *Time Picayune* in 1978 and 1979 indicated that a large majority of voters favor such a law, with the strongest support centered in the northern rural and non-industrial areas of the state.[11] Such a finding indicates that organized labor's goal of repealing the right to work law may be a difficult one to attain over the next several years. At the very least, this evidence suggests that the right to work debate will be alive in Louisiana for some time to come.

The experience of Louisiana with its right to work law over the last five years echoes with the memory of the words of State Senator William McLeod, who represented Lake Charles in the session in which the 1976 law was enacted: "From an economic point of view right-to-work is humbug."[12] Clearly, the passage of additional time and the accumulation of more experience with the right to work law will ultimately decide whether worker freedom, union versus management bargaining power, the occurrence of work stoppages, and the pace of economic growth in the state have been aided or hindered by Louisiana's 1976 right to work legislation.

[1]Robert C. Brown and Jeffrey A. Reed, "Right-to-Work Laws: The Issues and the Evidence," *Louisiana Business Review* 42 (December 1978): 2-6, 13-14.

[2]For a summary and an original treatment of this problem see: Morgan O. Reynolds, "The Free Rider Argument for Compulsory Union Dues," *Journal of Labor Research* 1 (Fall 1980): 295-313. Also, Thomas R. Haggard, "The Free Rider Argument for Compulsory Union Dues: Comment," *Journal of Labor Research* 1 (Fall 1980): 318.

[3]For a summary, see: Brown and Reed. More recent studies have reached essentially the same conclusion. See, for example: William I. Moore, "Membership and Wage Impact of Right-to-Work Laws," *Journal of Labor Research* 1 (Fall 1980): 349-368; and Walter J. Wessels, "Economic Efforts of Right-to-Work Laws," *Journal of Labor Research* 2 (Spring 1981): 55-75.

[4]Other right to work states include: Alabama, Arizona, Arkansas, Florida, Georgia, Iowa, Kansas, Mississippi, Nebraska, Nevada, North Carolina, North Dakota, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia and Wyoming.

[5]Newton E. Renfro, "Is it Individual Freedom or 'Scab' Freeloading?," *The Times Picayune*, 17 March 1976, sec. 1, p. 9.

[6]Advertisement, *The Times Picayune*, 22 June 1976, sec. 1, p. 7.

[7]U.S., Department of Labor, Bureau of Labor Statistics, *Handbook of Labor Statistics, 1980*, Bulletin 2070, (Washington, D.C., 1980), p. 414.

[8]Ibid., p. 197.

[9]Candace Lee, "Right-to-Work 5 Years Later," *Baton Rouge Morning Advocate*, 27 September 1981, sec. a, p. 20.

[10]Ibid.

[11]*The Times Picayune*, 18 February 1978, sec. 1, p. 5; and *The Times Picayune*, 26 October 1979, sec. 1, p. 1.

[12]*The Shreveport Times*, 9 July 1976, sec. 1, p. 1.

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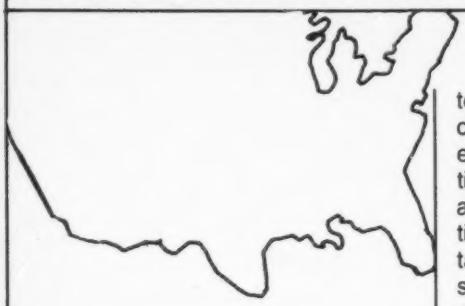
NATIONAL NEWS OF NOTE



Federal Tax Cuts to Save Typical Family $825 by 1984.

The typical American family will save $825 in 1984 as a result of the tax cuts embodied in President Reagan's Economic Recovery Act of 1981, according to economists at the Tax Foundation. In fact, this family's real after-federal tax income—in terms of 1980 dollars—should be $15 higher in 1984 than in 1980, reversing the steady decline in the American family's purchasing power that has occurred in recent years.

With inflation, the projected 1984 median family income ll be $26,926, about 31 percent higher than in 1980, (see accompanying table). Under the old tax laws, federal income and social security taxes would have claimed $5,306 of this total, leaving an after-tax income of $21,620. In real terms, this figure would have represented a 4 percent drop from that of 1980.

Even with the 1981 tax revisions, real after-tax income will probably not rise more than 0.1 percent over the 1980-84 period, however. Federal taxes for the typical family of four will total $4,481, leaving an after-tax income of $22,445 in 1984. The overall effect of the tax cut will be to substantially reduce income taxes and offset a planned 43 percent rise (with inflation) in social security taxes. Income taxes will rise by only 23 percent instead of the originally planned 61 percent over the five-year period.

Deficit or Surplus? Depends on the Assumptions

With current estimates of the 1984 federal budget deficit ranging from $90 billion to $150 billion, it is natural to wonder what the economists in Washington are doing. The reason for such large differences in the projected and actual budget outcomes, according to Rudolph G. Penner, is the sensitivity of the projected budget to the economic assumptions on which it is based. Small changes in the predicted rates of inflation or unemployment, for example, reverberate into big changes in government spending and receipts, Penner says in "Budget Assumptions and Budget Outcomes" in the August 1981 issue of the *AEI Economist*.

As an illustration, a one percentage point rise in the inflation rate beginning in January 1981 would lower the fiscal year 1982 budget deficit by $5 billion. Total federal expenditures would increase by $6 billion due to the automatic additional costs inflation places on indexed benefit programs such as social security, food stamps and school lunch subsidies, as well as the cost of servicing the national debt. Yet the "bracket creep" effect of inflation, that pushes income taxpayers into higher tax brackets as their money income rises, would in turn raise federal tax receipts by $11 billion, in this case.

Similarly, interest rates one percentage point higher than expected for January 1981 would increase federal outlays by $4.2 billion for fiscal year 1982. Furthermore, if the gross national product grows more slowly than predicted for 1981 and 1982, the 1982 deficit will be higher than originally forecast. A one percentage point drop in real growth would raise federal spending by $4 billion and lower receipts by $13 billion in 1982, leaving the budget $17 billion further in the red for that year.

The sensitivity of the budget to economic assumptions has serious implications in the policy making area, according to Penner. For instance, one of the most controversial cuts proposed for the 1982 Reagan budget was the elimination of minimum social security benefits, which would save the government $1 billion. By lowering the forecasted interest rates by less than one-half a percentage point, however, the same amount could appear to have been saved. Given this temptation to "fudge" the figures, Penner says, it is surprising forecasts are as accurate as they are.

Effect of Direct Federal Taxes and Inflation on Purchasing Power of Median Income Family, 1980-84

	1980	1981	1982	1983	1984
Median Family Income (current dollars)*	$20,586	$22,624	$24,209	$25,588	$26,962
Under prior law:					
After tax income (current dollars)	17,145	18,522	19,673	20,703	21,620
After tax income (1980 dollars)	17,145	16,853	16,729	16,656	16,529
Under current law:					
After tax income (current dollars)	—	18,555	19,979	21,310	22,445
After tax income (1980 dollars)	—	16,883	16,989	17,144	17,160

*Median income of all families with one earner, employed full-time year-round, consisting of a married couple with two children.

Source: Tax Foundation, Inc., *Monthly Tax Features* 25 (September 1981):3.

Survival Kit Available for Businessmen

The national CPA firm of Seidman and Seidman has recently published a "Recession Survival Kit" designed for businessmen who want action-oriented information to help them cope with the recession.

The kit, a set of three short pamphlets, highlights current advice given to Seidman's clients, predominantly smaller and medium-sized companies. It focuses on inventory management improvement, facilitation of cash management, and cost cutting techniques.

The survival kit can be obtained free of charge by writing or calling: Seidman and Seidman, 110 Union Bank Building, Grand Rapids, Michigan 49503, (616) 774-7000. □

LOUISIANA BULLETIN

'Dream State' Promotion to Boost Tourism

In an effort to boost Louisiana's $2.5 billion tourist industry, the Louisiana Office of Tourism recently launched its "Louisiana—A Dream State" promotional campaign.

Since November, ads graphically depicting the state's theme have appeared in such national and regional publications as the *New York Times, Chicago Tribune* and *Washington Post* Sunday magazines; *National Geographic, Holiday USA, L'Actualite, Texas Monthly* and *New West.* Other advertising and promotional efforts include the playing of a new song commissioned expressly for this campaign and entitled "Louisiana—A Dream State," on radio stations around the state; a series of billboards at locations in Louisiana's neighboring states, as well as the distribution of brochures, bumper stickers and t-shirts. Future plans for the campaign include television spots as well.

The promotional campaign, Louisiana's first nationwide tourism advertising effort, is being targeted at people "looking for adventure, ambience, scenery—and something a little different," according to Robbie Robertson, president of Coleman Robertson, the New Orleans advertising firm handling the campaign. The ads portray Louisiana as an ideal state suspended in time, like a daydream.

The purpose of the campaign is not only to bring tourists to Louisiana, but to promote pride in the concept of Louisiana being "a dream state" on the part of the people in Louisiana. "We want everyone in the state to get involved in this campaign," says Robertson. "In fact, we need everyone's involvement for it to be really successful."

Participation by schools, universities, individuals and businesses is planned once the campaign gets going full steam. Some businesses have already decided to get involved in the effort. Robertson cites the recent example of SAIA Motor Freight Company as the kind of participation state officials would like to see. Having seen the bumper stickers, SAIA president Rex Joiner telephoned and offered to paint the side of three of his trucks with a giant size logo of "Louisiana—A Dream State." He reports that since the trucks were painted and began traveling across the country, their drivers have been deluged with questions from the curious who see them. And this is just the kind of curiosity that Robertson and Tourism Director Cornelia Carrier hope to stimulate.

Inquiries about additional information or how individuals and businesses can become involved with the "Dream State" campaign should be directed to Robbie Robertson or Eddie Kurtz, Coleman Robertson, Inc. Advertising, 441 Gravier St., New Orleans, LA 70130, (504) 586-8404.

Cost of Living Figures Say Louisiana Expensive

Louisiana's cities are not less expensive to live in than other cities in the United States, according to the latest figures on living costs published by the American Chamber of Commerce Researchers Association. (ACCRA). The *ACCRA Index,* quoted in the October 1981 issue of *Key Comments* of the Greater Lafayette Chamber of Commerce, finds that except for Monroe the cost of living is above the national average in Louisiana's major cities.

Raw data for the index is compiled by each participating Chamber of Commerce throughout the country.

The July 1981 figures indicate that Lafayette ranked highest in the state with an overall cost of living index of 108.4. The cost of living indexes for other cities were Lake Charles (106.7), Baton Rouge (105.1), Shreveport (102.9) New Orleans (100.8) and Monroe (97.9). The national average is 100.0.

Lafayette is also Louisiana's most expensive city for grocery items and housing. Baton Rouge, according to the index, has the most costly utilities in the state. Highest transportation costs are in Lake Charles and health care is most expensive in Monroe.

Mexican Foreign Trade Institute Opens New Orleans Office

In an attempt to increase exports of Mexican goods into the Louisiana market, the Mexican government has established a New Orleans office of the Mexican Foreign Trade Institute. Luis Quintero heads the new office, which opened in November and provides information for potential importers of Mexican goods, as well as encourages direct investment in the Mexican economy.

For more information, contact the institute at the International Trade Mart, Suite 1009, 2 Canal Street, New Orleans, LA 70130, (504) 524-3735 or (504) 524-3769.

Taxes Up in Most States, Not Louisiana

The tax-cutting trend, characteristic of state legislatures in 1979 and 1980, seems to be on the wane, the Tax Foundation reports. Louisiana was one of the few states which did not raise its overall tax burden during 1981, according to the non-partisan research organization. The state's increase in the maximum local sales tax levy from 1.5 to 2.5 percent was offset by decreases in taxes elsewhere. Louisiana granted exemptions from sales taxes to law enforcement and hospital districts, public housing authorities, and building materials used to construct industrial facilities damaged by natural causes. It also adopted a $6,000 personal income tax exclusion for pensions of persons 65 and over. In addition, Louisiana was ordered by the U.S. Supreme Court to refund all taxes collected from its unconstitutional first-use tax on natural gas sales.

Nationwide, thirty states changed their tax laws in 1981, according to the foundation, raising revenues by a net $2.5 billion a year. (State governments collected a total of $137 billion in 1980.) This is the highest annual statutory increase since 1971's $5 billion jump and nearly six times the

1980 increase of $420 million. Higher sales taxes in four states and increases in motor fuel taxes in 24 states plus the District of Columbia accounted for most of the increase. The Tax Foundation reported that New York had the year's single largest tax increase package, where $793 million a year will be raised to finance mass transit.

Gasohol—A Costly Stopgag Energy Solution?

One way Americans have sought to reduce their reliance on imported oil over the past few years has been through the development of gasohol as a motor fuel. Gasohol is a mixture of gasoline and ethanol which has been touted by federal and state authorities as a way to replace OPEC oil with Nebraska corn or Louisiana sugar cane. In 1980, Congress exempted gasohol from federal motor fuel taxes and gave ethanol distillers a variety of tax credits and incentives to encourage production. The effect, experts said, was to have reduced oil imports by $10 billion at a cost of only $4 billion annually in federal subsidies by 1990.

Louisiana and twenty-four other states aided the effort with additional gasohol subsidies averaging 2.5 cents per gallon. Louisiana's subsidy of 12 cents per gallon is the highest in the country. State officials predicted that gasohol production would also boost the demand for Louisiana sugar cane, which can be used to produce ethanol.

Doubts about the economic wisdom of encouraging and subsidizing gasohol have surfaced since then. Studies have found that unless waste products, such as corn stalks or bagasse (the waste product of sugar cane processing), are used to fire the distilleries, the production process uses more fossil fuel than it "saves." More problems with gasohol have been outlined by Fred H. Sanderson, an expert on U.S. and international agricultural policies and a senior fellow and guest scholar at the Brookings Institution.

In "Benefits and Costs of the U.S. Gasohol Program" in the July 1981 issue of *Resources*, a quarterly publication of Resources for the Future, Sanderson claims that widespread use of gasohol will have a destabilizing effect on world food supplies and prices, and cost the taxpayer more than he saves in foreign oil.

Sanderson says the federal government's production target of 10 billion gallons of ethanol a year by 1990 would enable the country to cut its oil consumption by 470,000 barrels a day, or 7 percent of oil imports. Contrary to popular belief, though, the U.S. balance of payments would not improve as a result. The $6 billion saved on imports would be more than offset by reduced food exports, he argues.

The costs of gasohol are also much greater than stated, according to Sanderson. Federal and state subsidies to producers will reach $6.5 billion a year by 1990, or a total of $30 billion for the 1981-90 decade. The true cost of gasohol, when these subsidies are included, is no less than that of imported oil costing $40 a barrel, $6 more than today's price. The price of gasoline would have to double, while corn prices remained constant, for unsubsidized gasohol to be profitable, he calculates. Further costs will accrue to consumers in the form of higher food prices as one third of the grain and feedmeal fed to livestock today is diverted to ethanol production over the next decade.

Gasohol, Sanderson says, is nothing more than a costly stopgap for the 1980s, until synthetic fuels become economically feasible. He concludes that its effect on the economy, however, will be much more severe than other measures which could accomplish the same thing, most notably, conservation.

Petrochemicals Losing Their Edge?

High natural gas and electricity costs are curtailing the growth in Louisiana's huge petrochemical industry, According to a report in the November 4, 1981 issue of *Chemical Week*. Enormous quantities of cheap natural gas, inexpensive electricity and plentiful water resources have brought more than $1 billion a year in chemical investment to the state in recent years. These resources are becoming scarce and expensive, however, and as a result the rapid rise in chemical investment in the state has largely stopped, the magazine reports. According to Fred Loy, executive vice president of the Louisiana Chemical Association, "our industry is now facing the most serious crisis in its history." The state provides 10 percent or more of the U.S. capacity for ten different major industry products, but six plants have closed down or curtailed operations recently.

The main cause, according to *Chemical Week*, has been the rapid rise in natural gas prices in Louisiana, both absolutely and relative to that in other states. Firms lured to Louisiana by below-average energy prices are finding their costs are now near or above the national average. Long-term contracts setting the price of natural gas at 30 cents per thousand cubic feet (mcf) are expiring. The firms involved are now being forced to pay between $3 and $7 per mcf for natural gas.

The problem rests in the complicated system regulating the price and uses of natural gas produced in the state and elsewhere. Louisiana produces 7 trillion cubic feet annually, but 70 percent of that total is sold out-of-state. Texas, Louisiana's biggest competitor, produces about the same amount of natural gas, but exports only half as much. The Natural Gas Policy Act of 1978 classifies natural gas into eight separate categories according to where, how and under what contractual obligations the gas is produced. As controlled sources dry up, decontrolled gas prices are being driven well above their normal market levels, *Chemical Week* reports. This hurts Louisiana consumers who watch the state's low-cost supplies flow into other states.

If severance taxes on Louisiana natural gas are raised with the introduction of a value-based system, the chemical industry claims the shutdowns will increase. The answer for many of the Pelican State's users, *Chemical Week* concludes, seems to be a rapid deregulation of all prices and supplies, eliminating the competitive disadvantages currently in the system. □

COLLEGE HIGHLIGHTS

Dean Woodland Attends United Nations Symposium

Don L. Woodland, dean of LSU's College of Business Administration, was one of twenty-five deans of graduate schools of business administration, from major universities throughout the country, who was invited to a symposium sponsored by the Business Council for the United Nations.

The symposium was held at the United Nations headquarters and the Waldorf-Astoria in New York City last November. Its purpose was to stimulate interest in the United Nations as a resource for curriculum development in international business programs.

Economics Department to Host Seminar Series

Faculty members in the Department of Economics will be presenting discussions of research in progress during the department's 1982 spring seminar series. In addition, presentations will be given by two guest lecturers: Dr. Steven Buckles, from the University of Missouri and Dr. Talbot Page from California Institute of Technology. Topics include "Efficiency in the Use of the Courts," "Firm Rivalry and Pollution Control," "The Law of the Sea: Making Waves or Not So Dire Straits" and "Risk and Public Decision-Making." Most of the seminars will be held on Fridays at 3:00 p.m. in the CEBA Building on the Baton Rouge Campus. For further information call: Dr. Adrienne McElwain, Department of Economics, LSU, (504) 388-5211.

LSU One of Four College Campuses Selected for Beer Tasting Test

Louisiana State University, Baton Rouge, Florida State University, the University of Georgia and the University of North Carolina at Chapel Hill were selected by the Schlitz Brewing Company to participate in the pilot program of its beer tasting test last fall. The company is conducting research to determine whether or not the college student population should be treated as an individual beer drinking market. The pilot program represents the initial stage of the nationwide taste test Schlitz plans to carry out at thirty universities across the country. Both the marketing departments at LSU and Florida State were chosen by the company to direct the research for the program.

Honors and Awards

• James A. Richardson, associate professor of economics at LSU, has been appointed to the Editorial Advisory Board of the *Texas Business Review* for the term 1981-1984.

• Loren C. Scott, professor of economics and Associate Director of the Division of Research in the College of Business Administration at LSU, has been appointed to the Board of Directors of the Great American Corporation, the parent company of the American Bank and Trust Company in Baton Rouge. Dr. Scott will be serving on the Board's investments and trust committees.

• A paper co-authored by Alvin C. Burns, associate professor of marketing, and Stephen P. Golen, chairman of the Business Communications and Office Systems Department at LSU, and entitled "Perceived Communication Barriers to Business Education Across Alternative Pedagogies" was recognized by the American Institute of Decision Making Sciences at its annual meeting last year as one of its 1981 Distinguished Contributed Papers.

• Fred Endsley, associate professor of marketing at LSU, has been elected as the 1982 National President of Mu Kappa Tau, the national honorary marketing fraternity.

• Mary Carolyn Harrison, associate professor of marketing at LSU, has been nominated as the 1981-1982 President-Elect and Program Chairman for the Southern Marketing Association.

• Eric Reidenbach and Dan Sherrell, assistant professors of marketing at LSU, won a special award of excellence for their paper "An Application of Strategic Marketing Planning to Non-Profit Organizations: The Red Cross Blood Program" at the 1981 meeting of the Southern Marketing Association, held in Atlanta last November.

Conferences

• Pat Culbertson, professor of economics at LSU and expert on the behavior of futures and international currency markets, was invited to serve as a guest panelist at two conferences sponsored by the Chicago Board of Trade last September and November.

Recent Faculty Publications

• Dr. Herman E. Daly, professor of economics, at LSU is the senior editor, along with Alvaro Umana, and a contributor for a book entitled, *Energy, Economics and the Environment: Conflicting Views of an Essential Interrelationship*, published by Westview Press in December 1981, for the American Association for the Advancement of Science.

New Faculty

• Two new faculty members joined the Department of Accounting this January. Dicky L. Price, a Ph.D. candidate at the Virginia Polytechnical Institute (VPI), is an instructor in managerial accounting, financial accounting concepts and accounting principles.

• David Vicknair, an assistant professor of financial and governmental accounting, earned his D.B.A. from the University of Tennessee, Knoxville.

• David Cary has joined the Department of Finance as an Instructor in business finance, this January. Mr. Cary is a Ph.D. candidate at the University of California at Los Angeles.□

IN APPRECIATION

The **Louisiana Business Review,** a quarterly publication of the Division of Research in the College of Business Administration at Louisiana State University, is dedicated to providing worthwhile and timely information on local, state and national economic developments of interest to members of the Louisiana business and government communities. This objective is being achieved by presenting high quality, readable articles written by knowledgeable representatives from business, government and academia. The Division would like to express its sincere appreciation to the following companies whose valuable contributions have made this publication possible:

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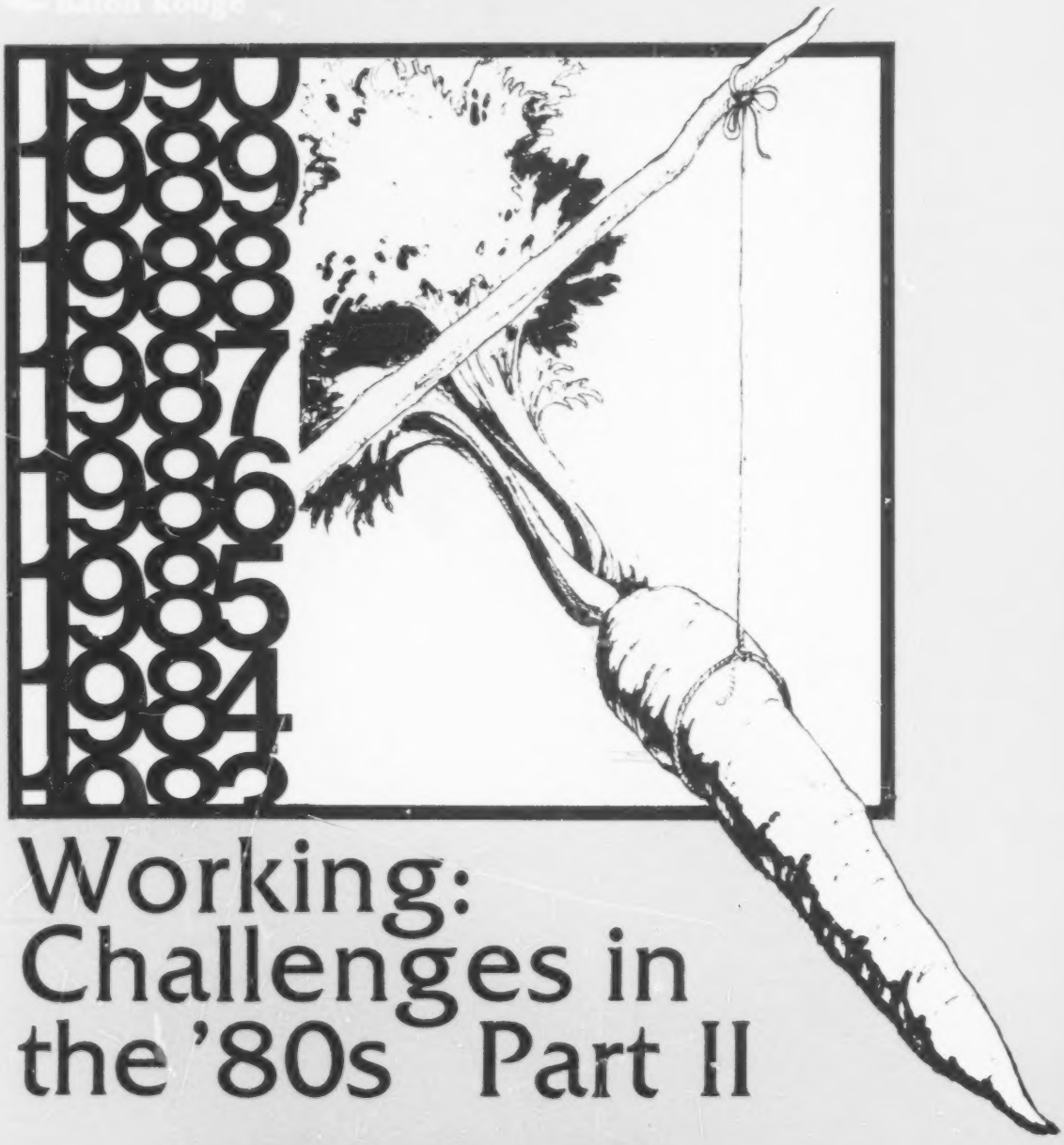

Working: Challenges in the '80s Part II

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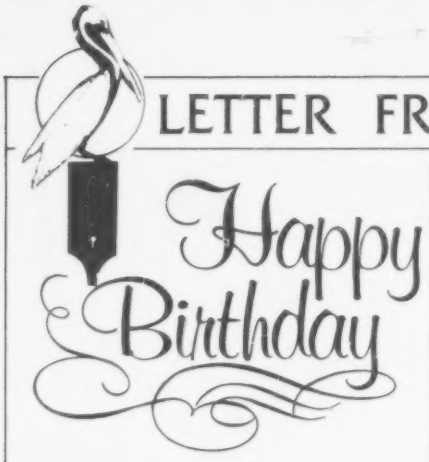
LETTER FROM THE EDITORIAL BOARD



Happy Birthday, LBR! Approximately a year ago the first issue (Spring 1981) of the new quarterly *Louisiana Business Review* was published. Our stated objective then, as now, was to provide worthwhile and timely information on local, state and national economic developments in the form of high quality, readable feature articles and regular departments.

As promised, several articles on the Louisiana economy have been published in the *LBR* over the past year. With one exception, each of the regular departments we had hoped to introduce has become a reality. LOUISIANA ECONOMIC TRENDS AND PROJECTIONS, which was to include our economic forecasts, has yet to make its debut. After reviewing our forecasting methodology, we determined that a more comprehensive and sophisticated model was needed. Aided by a grant from the Louisiana State Board of Regents, we are developing a broad-based state econometric model. We are hoping to publish the initial forecasting results in our Summer 1982 issue and devote our Winter 1983 issue to a discussion of these forecasts.

After reviewing similar publications of other state colleges and universities, we believe that the *LBR* now ranks among the top five. Nevertheless, we also realize that further improvements can be made. For example, as a result of first year naiveté, bad luck and other problems we have not met our original target publication dates. Hence, we are striving to get back on schedule. Also, to the extent possible, we would like to publish more articles based on original *empirical* research on the Louisiana economy.

A major constraint we are confronting is a financial one. During the past year, for example, our postage and printing costs have escalated by more than 400 percent. Fortunately, we are receiving financial support from banks and other firms in the Baton Rouge area, for which we are very grateful. During the next few months, however, we will need to expand our list of supporters.

This anniversary issue contains the second of our two-part series on labor and employment. In past recessions, Louisiana generally has had a lower unemployment rate than the national average, and one often heard statements that Louisiana was "recession-proof." At the time of this writing (June 1982), however, Louisiana has an unemployment rate of 9.9 percent, whereas the national average is 9.5 percent.

Louisiana's unemployment level results from the "trickling down" of national and international contractionary pressures, as well as some local peculiarities. Two well known causes of the current recession are high interest rates and imports. Less well known is the fact that the international value of the dollar, relative to that of other currencies, has increased significantly within the past two years. This change in the relative value of the dollar has made U.S. exports more expensive and the appreciation of the dollar—coupled with the worldwide recession—has, among other effects, caused the export level of Louisiana's petrochemical industry to fall.

Another factor aggravating today's unemployment rate is the effect of the post-World War II baby boom. Many of these young people are now graduating from college and entering the job market for the first time. Others of them have left or graduated from school within the past few years and still are searching for the "right job." These new entrants into the labor market, however, are only *temporarily* unemployed. As the population matures, the unemployment rate, due to the baby boom factor, will decrease. Louisiana has a higher proportion (13.7 percent) of its residents in the 18-24 age bracket as compared with the national average (13 percent). Thus, the state has relatively more new entrants and young "churners," with their associated high unemployment rates, than the average for the nation.

The unemployment level in Louisiana today also stems partly from the Natural Gas Policy Act of 1978. Due to its provisions, natural gas, which is used heavily as a fuel and feedstock by Louisiana's petrochemical industries, recently has been selling for a much higher price in Louisiana than in most other states. The resulting high production costs have forced some firms in the petrochemical and related industries to lower production levels, which in turn, has necessitated laying off some workers.

The demographic and economic characteristics of the nation, as well as those that are unique to Louisiana, will provide the setting for another growth period in employment for the state during the 1980s. Although this growth is not likely to be as strong as in the 1970s, it should reflect an improvement for most occupations. In "Louisiana's Job Outlook: A Forecast of the State's Industrial and Occupational Employment to 1990," Loren C. Scott projects the patterns of state employment growth and highlights some of the occupations which will experience more rapid growth.

As a result of the Economic Recovery Tax Act of 1981, personal income tax rates will be reduced by 25 percent over a three-year period. If work efforts are highly responsive to the tax cuts, federal tax revenues could increase, thereby lessening the federal budget pressure on interest rates. Bun Song Lee and R. Craig Romaine examine some of the theoretical and empirical evidence on this possibility in their article "Stimulating Individual Work Effort: Will the Reagan Tax Cuts Do It?"

In conclusion, we would like to thank all our readers, authors, book reviewers, financial contributors, and support staff members for their patience, assistance and cooperation during our challenging, yet rewarding, first year!

—The Editorial Board □

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Vol. 46 no. 2

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The Editorial Board invites the submission of manuscripts, to be considered for publication in this quarterly. Style sheets for manuscripts and manuscript abstracts are available upon request. Comments and suggestions on any material appearing in the *LBR* are also welcome.

All communications and address changes should be sent to the editor, Louisiana Business Review, Division of Research, College of Business Administration, Louisiana State University, Baton Rouge, LA 70803, (504) 388-6645.

Upcoming Issues

Dues dates for receipt of full manuscripts to be considered for publication in upcoming issues are:

Issue	*Due Date*
Spring 1983 (Housing and Real Estate)	October 15, 1982
Summer 1983 (Business Management)	January 15, 1983

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The Reagan administration's Economic Recovery Tax Act of 1981, which will reduce income tax rates by 25 percent by 1984, represents a significant reform of the tax structure in the United States. The impact of this measure on the economy, however, will rely, in large part, on the response of the U.S. labor supply to the tax cuts embodied in the new law. This article reviews the theoretical implications of the labor supply effects of taxes, and surveys the existing empirical literature on the topic. The authors conclude that the bulk of the U.S. labor force, that is, primary male workers, will not significantly increase its work effort, but other segments of the labor force, such as women and high income individuals, may exhibit a larger response.

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OUR READERS WRITE US

EDITOR'S NOTE: As the first-year anniversary issue of our new quarterly LBR *was being prepared for publication, we thought, "what could be a more appropriate time to introduce our newest department?" OUR READERS WRITE US is designed for exactly what its name implies: for you, our readers, to write and tell us what you think about the new* Review, *our latest issue or any article in particular that has caught your eye. Please let us hear from you! Below are excerpts from some of the letters we have received over the past year.*

Spring 1981 (Louisiana Economy)

Congratulations on a beautiful publication!

I just received my first copy and find it to be very informative and professionally done. Your graphics were beautiful and the publication was easily readable.

Keep up the good work.

Deanne W. Bingham
Bank of the South
Baton Rouge

The spring edition of the *Louisiana Business Review* is a major improvement. Congratulations on a most interesting and useful publication.

G. Lee Griffin, President
Louisiana National Bank
Baton Rouge

This will be just a brief note to extend congratulations to you and your associates in the very distinct improvement in your magazine. I have been privileged to receive your magazine for about 25 or 30 years and have read it most diligently. I hasten therefore to thank you and all of the others who had anything to do with the improvements.

Paul Garner, Dean Emeritus
Graduate School of Business
The University of Alabama
Tuscaloosa

Summer 1981 (Louisiana: The International Connection)

I have looked through the latest issue of the *Review* and find that you have altered its contents significantly and raised the research component. The markup is excellent, as is the format and typesetting.

If you can keep this up, it will become quite a useful publication for LSU and the State.

Jack N. Behrman, Luther Hodges Distinguished Professor
The University of North Carolina at Chapel Hill
Chapel Hill

Your publication is indicative of the support services provided by the College of Business Administration for Louisiana enterprises. I look forward to becoming a steady recipient of the *Louisiana Business Review* and wish you continued success towards its publication.

Michael G. Austin
Kisatchie-Delta Regional Planning and Development District, Inc.
Alexandria

I recently had the opportunity to read the Summer 1981 issue of your publication in our company's Louisiana Division Office located in Lafayette, and found it to be extremely informative.

I would appreciate being put on the list to receive a copy here at the headquarters facility.

William H. Bradley, Vice President
Eckerd Drug Company
Clearwater, Florida

Fall 1981 (A New Era for Banking)

I really enjoyed your last edition of the *Louisiana Business Review*. It is a credit to the banking industry and the articles throughout were written in a factual and unbiased manner.

In addition, the magazine provided a great deal of research material that will be of benefit to the Louisiana Bankers Association.

Allie C. Kleinpeter, Jr.
Government Relations Officer
Louisiana Bankers Association
Baton Rouge

I recently had the opportunity to read your Fall 1981 issue. I found the articles on banking very interesting. I would like to receive your magazine on a regular basis.

Ed Dauphin, Vice President
Bank of Lafayette
Lafayette

Winter 1982 (Working: Challenges in the '80s, Part I)

You're doing a beautiful job with the *Louisiana Business Review*! I like the format, content, color, and *everything*!

Bobbie McFatter
LSU Cooperative Extension Service
Baton Rouge

The Louisiana Business Review *welcomes letters from our readers. Address your correspondence to the editor, Louisiana Business Review, Division of Research, CEBA 3139, College of Business Administration, Louisiana State University, Baton Rouge, LA 70803. Letters may be edited for clarity and length.*

□

Cornelia M. Crabb

NATIONAL NEWS OF NOTE

Executive Demand Down in 1981, Except in Southwest

The demand for business executives across the nation dropped by 9 percent in 1981 compared with 1980, according to a recent issue of the *Executive Demand Index*, a quarterly publication of Arthur Young Executive Resource Consultants. Of the five U.S. geographic regions analyzed in the report, only the Southwest (which includes Louisiana) experienced an increase in the demand for business executives in 1981. Yet, even that region, with a 21 percent rise for the year, showed a 2 percent decline in its fourth quarter demand for business executives.

Nationally, the demand for engineering and science executives during 1981 was 16 percent above its level in 1980. All other functional categories for executive demand decreased during the period: general management, down 40 percent; personnel, down 21 percent; finance, down 16 percent; marketing and sales, down 11 percent; operations, down 4 percent; and administration, down 1 percent.

The Arthur Young survey is compiled by sampling advertisements in major business publications. The statistical methodology used is designed to reflect the demand for top and middle management positions in profit-oriented businesses.

1983 DOE Budget Request Lowest in Three Years

The March 1982 issue of *Energy Insider*, published by the Department of Energy (DOE), reports that President Reagan's proposed DOE budget of $11.8 billion for fiscal year 1983 is the lowest in three years. This figure compares with the 1981 and 1982 DOE budgets of $12.6 billion and $13.3 billion, respectively.

While increased spending in areas such as defense activities, general science, naval petroleum and oil shale reserves were requested, the proposed funding for areas such as research and development, uranium enrichment activities, strategic petroleum reserves, and program administration was slashed. According to the DOE report, the proposed budget is designed to eliminate unnecessary regulation, duplication and paperwork, and transfer some duties previously handled by the federal government to the private sector.

Under the Reagan budget plan, 70 percent of DOE's functions, or $8.5 billion, has been shifted to the Energy Research and Technology Administration in the Department of Commerce. Twenty-five percent of DOE's responsibilites, or $3.25 billion, has been recommended for transfer to the Department of the Interior. In addition, the Justice Department is designated to receive slightly less than 1 percent of the proposed 1983 budget.

Of the major cuts proposed, the most drastic include those for the fossil fuel and conservation grant programs. According to Guy Fiske, Under Secretary of the Department of Energy, the fossil fuel program curtailment requested by Reagan is in accordance with his administration's "decision to rely on the private sector for technology, demonstration and commercialization." Finally, the conservation grant program for state and local governments, and for appropriate technology and innovation, will be eliminated if the Reagan budget proposals are approved by Congress.

Tax Freedom Day Earlier in 1982—A First!

1982 marked the end of a fifty-year trend during which "Tax Freedom Day" has occurred later than the year before. The holiday, which represents the first day of the calendar year after the average American taxpayer has paid his annual tax obligations, occurred on May 5 this year, five days earlier than Tax Freedom Day 1981, according to the Tax Foundation, Inc.

Over the years, the American employee has had to spend more and more working days just to satisfy the tax collector. As a result, Tax Freedom Day has occurred either on the same day or later than the year before, up to 1982.

Railroads to Receive Tax Break

The nation's railroads will receive major profit windfalls in the next few years, due to a change of accounting methods allowable under the Economic Recovery Tax Act of 1981, according to a study conducted by the Chicago law firm of Lord, Bissell and Brook.

The 1981 Tax Act provides a special boost to railroads, worth over $16 billion, by switching them from "betterment" tax accounting to the new accelerated cost recovery system (ACRS) of accounting, applicable to all taxpayers.

Under the old system of accounting, no systematic depreciation of capital assets, such as of buildings or machines, was accounted for. "Betterments" of capital assets were not charged to expenses, but were considered to be assets.

Depreciation accounting, however, systematically and rationally allocates the historical cost of capital assets, over their estimated useful lives.

A First Boston Corporation report dated June 26, 1981 concludes that the new depreciation accounting procedures for railroads "will dramatically increase depreciation for tax purposes, and for the most profitable railroads, could eliminate much of current liability for the first three to four years." Dean Witter Reynolds Inc., the investment firm, concludes in a separate study that "the cash flow ramifications are enormous" for railroads as a result of the 1981 act.

"Komputer Ed Kit" Available

For those who are both baffled and intrigued by "Computereeze," the KFT Communications System, Inc. is offering help in the form of a "Komputer Ed" kit. Consisting of a series of audio tape cassettes and complimentary instruction manuals, the kit explains the technology and processes found in computers, as well as the potential benefits from their use.

The kit is available either through retail computer outlets or by mail order from KFT Communications, Inc., P.O. Box 3132, Tysons Corner Branch, McLean, Va. 22103. □

Loren C. Scott

Louisiana's Job Outlook:

A Forecast of the State's Industrial and Occupational Employment to 1990

The entrance of the post-World War II baby boom children into the labor force and a general surge in the Louisiana economy associated with the exploration for energy products, led to an exceptionally strong growth in the state's employment in the 1970s. In the 1980s, employment growth will slow somewhat, though employment will remain particularly robust in occupations associated with health care, away-from-home eating establishments, construction, and business services.

Non-agricultural employment in Louisiana grew by a remarkable 50.8 percent from 1970-1980, compared to a much lower rate of 27.8 percent for the nation. During this period, the state experienced significant employment growth in the oil and gas extraction, retail trade, and state and local government industries. In contrast, other sectors, such as the textiles, furniture, and paper industries, suffered a reduction in employment. Will these same trends persist through the 1980s? What will the industrial employment projections for the decade indicate about the demand for various occupational groups in the state?

This article presents industrial and occupational employment projections for Louisiana through 1990, based on the state's historical employment behavior over the past 20 years, as well as its expected demographic and economic trends during the 1980s.[1]

One might reasonably ask, why develop a special set of employment forecasts for Louisiana? Why not just use the forecasts of general employment trends developed by the U.S. Department of Labor for the nation as a whole?[2] The answer is that many states have economic bases that are quite unlike that of the United States. Consequently, occupations within a particular state's boundaries may not necessarily grow proportionately with those of the nation.

For example, Louisiana's economy is heavily dependent on energy producing industries. The state's natural resources of oil, natural gas, and vast quantities of water (primarily in the Mississippi River) influenced the development of an economic base that is not typical of the overall U.S. economy. Louisiana has proportionately *more* employment in the mining, transportation and public utilities, petroleum refining, and petrochemical industries, and proportionately *less* employment in durable goods manufacturing than is the case for the nation at large.[3] As a result, while the U.S. Department of Labor's general employment projections might be useful indicators of the general health of the economy, they cannot be regarded as reasonable indicators of growth in specific occupational categories for Louisiana.

A FORECASTING MODEL FOR LOUISIANA

In order to construct an industrial and occupational employment profile for Louisiana during the 1980s, it is necessary to develop an economic forecasting model that incorporates those economic characteristics that are unique to Louisiana, in addition to those general national factors that will affect employment trends in the state. This was done through the use of a statistical technique known as regression analysis. Basically, this involves describing the behavior of a particular industry's employment over the 1960-1979 period by way of a statistically derived equation. Given this historical behavior, the equation is then used to project what will happen to employment in that industry over the 1980-1990 period. It is also possible to use the equations to determine to what extent an industry's employment level depends upon national trends or behaves independently of the national economy. Finally, these industrial employment forecasts were plugged into an industry-occupation matrix, which enabled the industrial forecasts to be converted into the appropriate occupational employment growth projections.[4]

The forecasts obtained using the procedures described above were based on the following six underlying assumptions about the demography and economy of Louisiana:

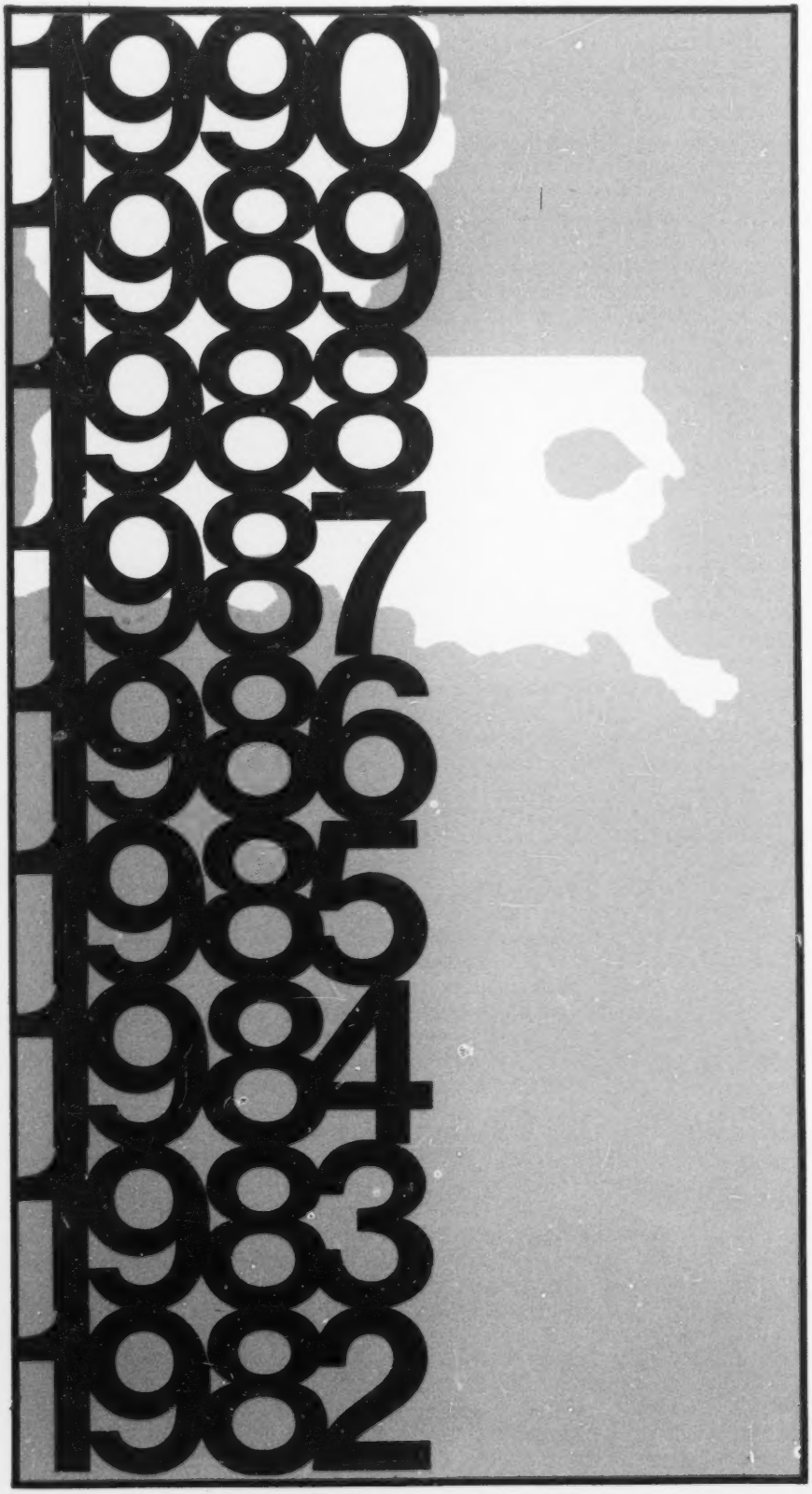
- *During the 1970s, the majority of the baby boom children of the 1947-1961 period were entering the labor force for the first time, which caused the labor force to grow very fast. There is no such large demographic bulge entering the labor force in the 1980s.*[5]

- *As the baby boom children enter the 1980s, they will significantly affect the demand for products in certain industries.*

- *The relatively rapid growth of personal income in Louisiana during the 1970s will continue during the 1980s.*

- *Oil and gas prices will remain high throughout the 1980s relative to their levels in the 1970s.*

- *Conservative attitudes at the national level regarding federal govern-*



ment spending and programs should persist throughout the 1980s.[6]

- *The North-South Highway will be under construction in the 1980s.*

The implications of each of these assumptions on future Louisiana employment conditions will be demonstrated in the discussion of the forecast results, below.

CHARACTERISTICS OF STATE EMPLOYMENT SINCE 1960

The statistical methodology described above revealed a number of general characteristics about industrial employment in the state. First of all, employment in Louisiana industries was found to be almost totally isolated from the effects of national business cycles over the 1960-1979 period. There were some exceptions to this rule, but generally speaking the economic variables used in the regression equations to capture the effects of national business cycles were found to be insignificant from a purely statistical standpoint. The more recent experience of the 1981-1982 recession may require a re-examination of this finding.

Secondly, employment in most of Louisiana's *manufacturing* industries does not appear to follow the general trend of employment in manufacturing industries at the national level. This result suggests that employment in these industries tends to be tied more to local or regional markets rather than to national markets. Employment in Louisiana's food and kindred products, as well as the textiles and apparel industries, however, does appear to be more closely related to employment trends in their national counterparts.

Thirdly, employment in most *non-manufacturing* industries in Louisiana was found to be highly related to employment in non-manufacturing industries for the nation as a whole. The one exception to this rule was in state and local government employment. In Louisiana, employment in this sector tends to be more robust than is the case nationally. The financial position of Louisiana's state government has been much stronger in recent years than that of most other states, primarily because of the extra revenues gener-

ated by Louisiana's energy-related taxes such as the severance tax, royalties, rentals and bonuses.

Last of all, employment in the mining sector in Louisiana has grown more rapidly than that of the mining sector for the entire United States. The mining sector includes not only coal, sulfur and salt mining, but also oil and gas exploration. Louisiana is the largest producer of natural gas and the third largest producer of oil in the nation.[7] Consequently, it is logical that mining employment in Louisiana has grown faster than in the country at large.

INDUSTRIAL EMPLOYMENT FORECASTS TO 1990

Table 1 contains the actual employment levels for 1970 and 1980, as well as the forecasted employment levels for 1990, by industry in Louisiana. The last four columns of the table show the absolute and percentage rates of employment growth over the last decade and the expected growth rates for the 1980s.

Total non-agricultural wage and salary employment is expected to grow by 31.1 percent during this decade. This compares to a much faster 50.8 percent growth rate for the 1970s. This noticeably slower growth rate in the 1980s is in keeping with the model's underlying assumption regarding demographic trends in the state. The large bulge in employment in Louisiana during the 1970s can be traced primarily to the entrance of the baby boom children into the labor force during this period. Since a similar bulge will not be experienced in the 1980s, employment growth should slow down significantly over the decade.

Louisiana should benefit from the Snowbelt-to-Sunbelt population shift during the 1980s, however, and the state should experience a significant immigration of industry because of the energy sources located here. Consequently, the forecasted growth rate for employment in Louisiana is noticeably higher than the predicted national growth rate of about 18 percent for the 1980s.[8]

Impact of Energy Sector

The impact of the energy sector is clearly evident in Table 1. Given the assumption that oil and gas prices will remain high throughout the 1980s relative to their levels in the 1970s, employment in particular industries will be affected. For example, continued steady growth is expected in the oil and gas extraction industry. Because a reoccurrence of the tremendous price increases of the 1970s is not expected, employment growth in this area will not match its record in the last decade, but will probably move slightly faster than the overall state average.

Too, as oil and gas prices remain high, coal should become more attractive as an energy source. This will affect Louisiana employment in two ways. First, Table 1 shows the lignite coal extraction industry developing for the first time in the state, generating an expected 2,500 new jobs. Secondly, major coal contracts with European and Japanese firms should cause a great deal of coal to be shipped down the Mississippi River and through Louisiana ports.[9] This latter development should contribute to employment growth in the transportation (except railroad) and transportation equipment (barge construction) industries.

The higher price of oil should cause gasoline prices to be significantly higher during the 1980s than they were on the average in the 1970s. These higher prices will put downward pressure on the amount of gasoline purchased, which in turn should cause the refining industry to grow more slowly than in the previous decade. Indeed, Table 1 shows a rather anemic growth of only 1500 jobs in this sector in the 1980s. On the other hand, the higher price of natural gas should lead to more exploration and, consequently, more discoveries of gas (such as the Tuscaloosa Trend) in the 1980s. These new supplies of gas should attract a continual flow of petrochemical firms to the state. The positive impact of these new supplies on petrochemical employment growth will be partially offset by the negative impact of the higher priced gas on the costs of operation in that industry. Uncertainty over decontrol of natural gas prices and federal government allocation procedures further clouds the employment future in this sector. Nevertheless, the data in Table 1 show employment in the chemical and allied products industry experiencing, in absolute terms, about the same growth as occurred in the previous decade.

Finally, the higher prices for oil and gas should work to buttress state revenues from severance taxes, royalties, rentals and bonuses. As a result, state and local government employment should increase by about 57,000 jobs in the 1980s, which equals 30,000 fewer new positions than occurred in the 1970s.

Impact of Personal Income Growth

As the relatively rapid growth of personal income in Louisiana during the 1970s continues throughout the 1980s, industries producing "income elastic" products (that is, products whose sales are very responsive to income changes) should enjoy a substantial amount of growth in employment. For example, especially strong growth is projected in the "other services" sector (employment up by 91,600) which contains most health care employment. This sector also includes business services such as janitorial, copying, secretarial and delivery which are typically very income responsive subsectors. Significant employment growth should also occur in the eating and drinking places, auto dealer and service stations, and general merchandise sectors as the population reacts to its higher income levels by purchasing these products.

Impact of Baby Boom Buyers and North-South Highway

The baby boom children will primarily be between the ages of 25 and 44 in the 1980s. Thus, there should be a very strong demand for housing and for the durable goods which will go in those homes for this period.[10] The strong housing demand, coupled with the construction of the North-South Highway, should contribute to the vigorous growth expected in contract construction employment. Employment in this area is projected to rise by 59,200 workers in the 1980s. The increased demand for items that go into new homes during the 1980s will permit a reversal in the downward drift in employment that occurred in the

TABLE 1

Non-Agricultural Wage and Salary Employment in Louisiana, 1970 and 1980 Actual, 1990 Projected

Industrial Sector[1]	Actual and Projected Employment Levels			Actual and Projected Net Change in Employment Levels			
	1970 (Thousands)	1980 (Thousands)	1990 (Thousands)	1970-1980 (Thousands)	1970-1980 (Percent)	1980-1990 (Thousands)	1980-1990 (Percent)
MANUFACTURING*	175.4	212.2	267.2	36.8	21.0	55.0	25.9
Durable Goods*	77.6	101.5	136.3	23.9	30.8	34.8	34.3
Lumber and wood products	16.1	14.9	17.0	−1.2	−7.5	2.1	14.1
Furniture and fixtures	1.2	0.8	0.9	−0.4	−33.3	0.1	12.5
Stone, clay and glass	7.8	8.8	12.4	1.0	12.8	3.6	40.9
Primary metals industries	5.1	7.5	9.3	2.4	47.1	1.8	24.0
Fabricated metals industries	9.5	16.9	18.4	7.4	77.9	1.5	8.9
Machinery (except electrical)	5.5	12.2	15.8	6.7	121.8	3.6	29.5
Electric and electronic equipment	4.9	10.2	19.7	5.3	108.2	9.5	93.1
Transportation equipment	18.9	28.1	38.9	9.2	48.7	10.8	38.4
Other durable goods	8.6	2.1	3.9	−6.5	−75.6	1.8	85.7
Non-Durable Goods*	97.8	110.7	130.9	12.9	13.2	20.2	18.2
Food and kindred products	31.1	26.5	29.4	−4.6	−14.8	2.9	10.9
Textiles and apparel	8.9	11.4	12.3	2.5	28.1	0.9	7.9
Paper and allied products	16.5	13.3	13.7	−3.2	−19.4	0.4	3.0
Printing and publishing	6.9	9.1	11.5	2.2	31.9	2.4	26.4
Chemicals and allied products	23.6	33.5	43.3	9.9	41.9	9.8	29.3
Petroleum and coal products	10.3	13.0	14.9	2.7	26.2	1.9	14.6
Petroleum refining	9.5	12.1	13.6	2.6	27.4	1.5	12.4
Other non-durable goods	0.5	4.1	5.8	3.6	720.0	1.7	41.5
NON-MANUFACTURING*	866.2	1,358.9	1,791.9	492.7	56.8	433.0	31.9
Mining*	50.7	87.3	117.3	36.6	72.3	30.0	34.4
Oil and gas extraction	47.0	83.3	110.7	36.3	77.2	27.4	32.9
Nonmetallic minerals (except fuel)	3.7	4.0	4.1	0.3	8.1	0.1	2.5
Lignite coal	0.0	0.0	2.5	0.0	—	2.5	—
Contract Construction	73.8	140.6	199.8	66.8	90.5	59.2	42.1
Transportation and Public Utilities*	92.6	124.3	140.0	31.7	34.2	15.7	12.6
Railroad transportation	8.0	8.6	6.6	0.6	7.5	-2.0	−23.3
Transportation (except railroad)	54.6	75.7	90.7	21.1	38.6	15.0	19.8
Communications and public utilities	30.0	40.0	42.7	10.0	33.3	2.7	6.8
Wholesale and Retail Trade*	230.0	355.9	502.1	125.9	54.7	146.2	41.1
Wholesale trade	64.6	101.6	125.1	37.0	57.3	23.6	23.1
Retail trade*	165.4	254.3	377.0	88.9	53.7	122.7	48.3
General merchandise, appliances, accessories	43.6	58.1	75.0	14.5	33.3	16.9	29.1
Food stores	26.9	45.5	57.7	18.6	69.1	12.2	26.8
Auto dealers and service stations	28.2	31.6	41.9	3.4	12.1	10.3	32.6
Eating and drinking places	32.2	71.6	135.0	39.4	121.7	63.4	88.5
Other retail trade	34.5	47.5	67.4	13.0	37.7	19.9	41.9
Finance, Insurance and Real Estate	48.7	74.7	98.1	26.0	53.4	23.4	31.3
Banking[2]	13.2	24.1	34.4	10.9	82.6	10.3	42.7
Services and Miscellaneous*	157.2	270.0	370.3	112.8	71.8	100.3	37.1
Hotels and other lodging places	10.7	20.5	29.2	9.8	91.6	8.7	42.4
Other services and miscellaneous	146.5	249.5	341.1	103.0	70.3	91.6	36.7
Government*	213.2	306.1	364.3	92.9	43.5	58.2	19.0
Federal	30.5	35.9	37.1	5.4	17.7	1.2	3.3
State and local*	182.7	270.2	327.2	87.5	49.7	57.0	21.1
State	NA	97.6	112.9			15.3	15.7
Local	NA	172.6	214.3			15.7	24.3
TOTAL NON-AGRICULTURAL WAGE AND SALARY WORKERS	1,041.6	1,571.1	2,059.1	529.5	50.8	488.0	31.1

NA — not available

[1]The employment levels of those sectors denoted with an asterisk are derived by summing up employment in the sub-sectors under them. Employment in those industries without asterisks were based on the estimated regression equation.

[2]"Banking" is the only subsector under Finance, Insurance and Real Estate for which employment data are reported.

Source: 1970 and 1980 data from unpublished mimeographed report of the Louisiana Department of Employment Security.

lumber and wood products and the furniture and fixtures industries in the 1970s. Note, too, that the general aging of the population in the 1980s is another factor contributing to the increased demand for medical services.

OCCUPATIONAL FORECASTS TO 1990

What do these industrial employment projection figures indicate about the demand for specific occupational skills in Louisiana during the 1980s? To answer this question, the data in Table 1 were sent to the Bureau of Labor Statistics (BLS) in Washington, D.C. to be processed through its industry-occupation matrix for the state of Louisiana. This matrix is based on a series of three surveys conducted by the Louisiana Office of Employment Security in 1977, 1978 and 1979. The output from BLS's data conversion process contains almost 1,400 occupational employment projections for 1990 in Louisiana.[11]

Employment Growth in Broad Occupational Categories

Table 2 summarizes this mass of employment data by eight *broad* occupational employment categories for 1978 (actual levels) and 1990 (projected levels). The last two columns in the table report the absolute and percentage growth in employment from 1978 to 1990 for each category. Also illustrated is the percentage of Louisiana's total employment represented by each category. It is interesting to note, by comparing this latter percentage for 1978 and 1990, that the forecasting model does not predict any radical changes in employment shares across broad occupational categories. According to Table 2, the largest growth in employment will occur among service workers (e.g., nurses, waiters, cooks and security guards), followed by clerical workers, and crafts and kindred workers. The slowest absolute growth should occur in the sales workers occupational group.

Fastest Growing Occupations

Table 3 presents a ranking of the 31 fastest growing occupations among the 1,400 listed by BLS. Each of these occupations is projected to grow by more than 4,500 positions. At the top of the list are sales clerks and sales workers, an occupation that is expected to grow by 28,839 jobs in this decade. It should be noted that the numbers in Table 3 refer to new, additional job slots. The total number of job openings over the next decade will be much larger due to retirements, resignations, and lay-offs which generate additional job openings.

It is evident from Table 3 that many of the fastest growing occupations in Louisiana are those associated with food establishments. This finding reflects the industrial employment projection trends reported above which indicate that the eating and drinking places industry is expected to expand quite rapidly in the 1980s. Thus, Table 3 shows that food preparers, waiters, cooks, kitchen helpers, waiter assistants, and restaurant and cafe managers will be in relatively high demand in Louisiana during the 1980s.

Also, because the health care industry is another sector that was projected to increase rapidly in Table 1, Table 3 reveals that workers in health-related occupations such as nurses and orderlies, professional nurses, and licensed practical nurses, will be among those in highest demand in Louisiana during the coming years.

The generally strong growth in the Louisiana economy, coupled with the expected housing boom and the North-South Highway construction, is reflected in Table 3 in the employment projections for those occupations associated with construction activity. These include blue collar supervisors, welders, carpenters, assemblers, plumbers and pipefitters, heavy equipment operators, roustabouts and electricians. Other occupations, such as secretaries, janitors, general office clerks, accountants, guards, maintenance and repair workers, and typists will also proliferate because they provide an array of support services to other growing industries.

TABLE 2

Employment By Broad Occupational Groups in Louisiana, 1978 and 1990

Occupation	1978		1990		Change, 1978-1990	
	Number	Percentage of Total Employment	Number	Percentage of Total Employment	Number	Percent
Professional, Technical, and Kindred Workers	228,402	15.66	297,198	14.62	68,796	30.1
Managers, Officials, Proprietors	115,710	7.93	162,216	7.98	46,506	40.2
Sales Workers	93,587	6.41	122,367	6.02	28,780	30.8
Clerical Workers	265,316	18.19	365,293	17.97	99,977	37.7
Crafts and Kindred Workers	202,493	13.88	283,002	13.92	80,509	39.8
Operatives	219,426	15.04	292,893	14.41	73,467	33.5
Service Workers	213,851	14.55	342,785	16.86	128,934	60.3
Laborers, Except Farm	120,133	8.23	167,299	8.23	47,166	39.3
Totals	1,458,918	100.0	2,033,053	100.0	574,135	39.4

Source: 1978 data were provided by the Louisiana Office of Employment Security in mimeograph form.

SUMMARY AND CONCLUSIONS

A review of the state's employment record over the past decade shows that the entrance of the baby boom children into the labor market, combined with the impetus given to the economy by the resurgence in oil and gas extraction, caused Louisiana's nonagricultural employment to grow by a vigorous 51 percent in the 1970s. The basic industries of contract construction, mining and transportation provided the primary vitality to the state's economy, which in turn led to a healthy growth in the supportive trade, services, finance and government sectors.

Primarily because of a general slowing down in the number of new entrants into the labor force, employment in the Louisiana economy is expected to grow at a slower, yet still vigorous, rate of 31 percent in the 1980s. The contract construction and oil and gas extraction industries are expected to provide much of the foundation for this growth, which will in turn contribute to a further expansion in the trade, services, finance and government sectors. Based on these expected employment growth patterns, occupations associated with health care, business services, construction and eating establishments are projected to be the largest sources of new jobs in the 1980s.

[1]The material in this project was prepared under Grant No. 08-5027-1633 from the Employment and Training Administration, U.S. Department of Labor under the authority of Title III, part B, of the Comprehensive Employment and Training Act of 1973. Researchers undertaking such projects under government sponsorship are encouraged to express freely their professional judgment. Therefore, points of view or opinions stated in this document do not necessarily represent the official position or policy of the Department of Labor. The author wishes to thank Dean U. L. White of Southern University for his aid in obtaining financial support for this project. Mr. Oliver Robinson, Ms. Mary Siemann, and Ms. Lynne Pearson of the Louisiana Office of Employment Security made innumerable important contributions to this project. The author alone is responsible for any errors in the article.

TABLE 3

Most Rapidly Growing Occupations in Louisiana: 1978-1990

Rank	Occupation	Employment Level 1978 (Number)	1990 (Number)	Change, 1978-1990 (Number)	(Percent)
1	Sales Clerks and Workers	86,748	115,620	28,839	33.3
2	Janitors	50,520	71,329	20,809	41.2
3	Food Preparers	19,404	38,818	19,414	100.1
4	Helpers—Trades	28,855	44,485	15,630	54.1
5	Waiters	15,463	30,111	14,648	94.7
6	Nurses Aid and Orderlies	23,331	37,676	14,345	61.5
7	General Clerks, Office	34,026	46,710	12,684	37.3
8	Cashiers	28,886	41,457	12,571	43.5
9	Cooks	17,869	29,267	11,398	63.8
10	Secretaries	31,579	42,512	10,933	34.6
11	Truck Drivers	30,634	40,649	10,015	32.7
12	Blue Collar Supervisors	25,985	34,973	8,988	34.6
13	Kitchen Helpers	11,720	20,032	8,312	70.9
14	Welders	16,204	24,131	7,927	48.9
15	Professional Nurses	12,765	19,686	6,891	54.3
16	Carpenters	13,712	20,450	6,738	49.1
17	Accountants	13,179	19,879	6,700	50.8
18	Licensed Practical Nurses	9,636	15,545	5,909	61.3
19	Guards	14,054	21,353	5,873	51.9
20	Assemblers	8,636	14,184	5,548	64.2
21	Plumbers and Pipefitters	10,920	16,435	5,515	50.5
22	Typists	14,289	19,551	5,262	36.8
23	Maintenance Repairs, General Utility	14,939	20,183	5,244	35.1
24	Heavy Equipment Operators	8,832	14,028	5,196	58.8
25	Receptionists	8,953	14,004	5,051	56.4
26	Waiter Assistants	5,262	14,242	4,980	94.6
27	Roustabouts	12,783	17,638	4,855	38.0
28	Electricians	11,420	16,235	4,815	42.2
29	Auto Mechanics	12,912	17,660	4,748	36.8
30	Restaurant and Cafe Managers	6,297	11,012	4,715	74.9
31	Store Managers	14,688	19,400	4,712	32.1

Source: Same as for Table 2.

[2]See, for example, U.S., Department of Labor, Bureau of Labor Statistics, *Occupational Outlook Quarterly* (Spring 1980).

[3]These differences between the U.S. and Louisiana economy are summarized in: Loren C. Scott, "The Louisiana Economy in the 1970s: A Decade of Growth and Internal Shifts," *Louisiana Business Review* (Spring 1981): 7-12, and Loren C. Scott, "Louisiana's Energy Future," Proceedings of the 28th Annual Institute of Mineral Law, edited by Pat Martin, (Baton Rouge: Louisiana State University, forthcoming).

[4]A more expanded description of this methodology, along with the thirty-three regression equations that were developed, are available on request from the author.

[5]For a discussion of the impact of these demographic changes on the economy in the 1980s, see: Loren C. Scott, "Demographic Shifts and the Economy of the 1980s," *Louisiana Business Review* (April 1980): 2-5.

[6]For an explanation of this expectation, see: *Ibid.*

[7]*American Petroleum Institute, "Petroleum Industry Statistics," Basic Petroleum Data Fact Book* (May 1981), section VI, table 56 and section XIII, table 96. Data are for 1979.

[8]The national growth rate in the 1980s was roughly estimated by dividing 1980 industrial employment levels reported in Table 8 of the *Monthly Labor Review* (April 1981), into projected total employment levels for all occupations adjusted for non-wage and salary employment reported in *Occupational Outlook Quarterly*, (Spring 1980): 5.

[9]*Baton Rouge Sunday Morning Advocate*, 15 March 1981, p. A-1.

[10]See: Scott, "Demographic Shifts . . ." for a more detailed description of this phenomenon.

[11]The thirty page print-out of the individual occupational forecasts is available from the author for a small reproduction charge.

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BOOK CORNER

Stress: How It Affects Today's Executives

Executive Families Under Stress: How Male and Female Managers Can Keep Their Pressures Out of Their Homes, by Cary L. Cooper (Englewood Cliffs, N.J.: Prentice Hall, Inc., 1981), 170 pp., $11.95 (hardcover), $5.95 (paperback).

The fast pace of today's business world and the increasing pressures due to economic strain have medical doctors reporting more signs of stress, both physical and psychological, in the patients that they see. Cary Cooper provides an invaluable look to the future on this subject in *Executive Families Under Stress: How Male and Female Managers Can Keep Their Pressures Out of Their Homes*. The book reads quickly, while concisely discussing major sources of managerial stress for the 1980s and 1990s and providing information regarding what managers and organizations can do to reduce that stress in the years ahead.

Cooper classifies the sources of stress facing managers into four main categories; those that (1) are unique to male managers, (2) are unique to female managers, (3) originate from the impact of managerial responsibilities on family relations, and (4) stem from the goals and demands of the organizations to which the managers belong. While he provides an in-depth review of the social pressures women in managerial roles must overcome, Cooper treats the subject of male managers under stress relatively lightly, concentrating on a statistical analysis of recent research on the topic.

In his discussion of family relations and managerial stress, the author focuses on the problems caused by job relocation, such as loneliness, emotional stress and the inconsistency of children's schooling. Cooper's presentation of the organizational sources of stress focuses on the new problems that are being created due to (1) the essential changes in career planning as dual-career couples increase their representation in the labor force, (2) the necessary increased demands in organizational expectations regarding managerial commitments, (3) the accompanying changes in job design and organizational climate, and (4) the lack of organizational humanity and social support.

Cooper's most significant chapters are his last two, on how to handle managerial stress. Both are well developed, and each one centers on (1) what executive families under stress can do to help themselves and (2) how organizations can reduce the amount of stress on their managers caused by organization demands, respectively. Cooper, a professor of organizational psychology at the University of Manchester and author of many books and articles on managerial and organizational behavior, provides a clear examination of executive stress in organizations today. *Executive Families Under Stress* represents an important contribution to the literature which should be beneficial to individual managers and organizations alike.

— Edith Batz

Economic Perspectives on Louisiana

"The Louisiana Economy, 1970-1981: A Bibliography of Periodical Articles" by Milton G. Ternberg (Baton Rouge: Troy H. Middleton Library, Louisiana State University, 1982), 17 pp.

For those individuals with a keen interest in the Louisiana economy, Milton Ternberg of LSU's Middleton Library has performed a valuable service. In his compact, unpublished manuscript "The Louisiana Economy, 1970-1981: A Bibliography of Periodical Articles," Ternberg has catalogued articles published on Louisiana's economy over the last decade. Actually, his work would be more correctly titled "A *Selected* Bibliography . . ." since it only contains articles describing either the economy as a whole, or the impact or importance of certain industries on the economic characteristics of the state. For those interested in pre-1970 writings, Ternberg is helpful in including two references to bibliographies covering earlier time periods.

Ternberg's bibliography is an especially useful reference document because the articles included are categorized by industry. Thus, if one is specifically interested in developments in the tourism industry for example, it is easy to refer quickly to the author's listing under that category.

One is struck upon scanning the seventeen pages of bibliographical entries by the number of references to articles published by the business and economic research divisions at LSU, UNO, and Louisiana Tech. Indeed, Ternberg, in his introduction, concludes that "Without the business reviews published by Louisiana's major universities, very little analytical information [on the state] would be available."

Xerox copies of Milt Ternberg's bibliography may be obtained upon request, by writing to: Milton G. Ternberg, Troy H. Middleton Library, Louisiana State University, Baton Rouge, LA 70803.

—Loren C. Scott

An Examination of U.S. Pension Policy

Retirement Income Opportunities in an Aging America: Program and Benefit Entitlement by Sylvester J. Schieber and Patricia M. George (Washington, D.C.: Employee Benefit Research Institute, 1981), 131 pp., $10.

If you are interested in an outdated and tiresome overview of pension policy in the United States, *Retirement Income Opportunities in an Aging America* is just what you are looking for.

After reviewing the interrelationships and differing goals of the various retirement income alternatives—social security, employer sponsored pension plans, personal assets, and public welfare programs—authors Sylvester Schieber

and Patricia George provide a thorough description of pension coverage under employer sponsored plans. They infer that the decline in the establishment of new pension plans is a result of the enactment of the Employee Retirement Income Security Act of 1974 (ERISA) and the concurrent rise in social security taxes.

Schieber and George then take issue with the models and modeling assumptions used by the President's Commission on Pension Policy, which recommended mandatory employer sponsored plans. Disputing this recommendation, they note that the establishment of new plans has rebounded to its pre-ERISA level, and that coverage under employer sponsored plans has been increasing. Retirement income alternatives, they emphasize, must be viewed in an integrated, rather than in a piecemeal, fashion. They conclude by offering a set of policies designed to encourage individuals to do more in providing for their own retirement.

Although reasonably well-written, *Retirement Income Opportunities* can charitably be described as dry, except for people with a special interest in pension policy. Furthermore, the Individual Retirement Account (IRA) program and other retirement income provisions of the Economic Recovery Tax Act of 1981 have altered the U.S. retirement picture to such an extent that Schieber and George's study has already become outdated. Finally, since the authors are employees of a trade association with vested interests in pension policy, one must scrutinize their findings closely.

Although its title suggests that the book compares the various financial plans available in preparing for retirement, *Retirement Income Opportunities* will disappoint readers who desire such information. Several books in the popular press offer reasonable strategies for accumulating a nest egg. A fine example is Sylvia Porter's *New Money Book for the 80's* (New York: Doubleday and Company, 1979), but it too requires updating.

—David M. Cordell

More Publications of the Bureau of Labor Statistics (BLS), U.S. Department of Labor

• *Economic Projections to 1990*, Bulletin 2121 (Washington, D.C.: U.S. Government Printing Office, 1982). (*Check with the U.S. Government Printing Office or a local depository library for price and stock number.)*

The ability to look into the future is a powerful business tool. This publication forecasts a variety of economic indicators to 1990. It begins with five articles discussing economic projections, the U.S. economy, the outlook for industry output and employment, occupational employment growth and the 1995 labor force. The remainder of the publication consists of three appendices providing 1990 projections for the U.S. gross national product (GNP) and its components; domestic output, and employment levels, as well as the number of hours worked; and the size of the civilian labor force and labor force participation rates by age, sex and race.

• *Geographic Profile of Employment and Unemployment, 1980*, Bulletin 2111 (Washington, D.C.: U.S. Government Printing Office, 1982), $6.00 (stock no. 029-001-02697-8).

A statistical study of labor force, employment, and unemployment based on the U.S. Census Bureau's "Current Population Survey" of the fifty states, thirty large metropolitan areas, and 11 large cities. There are no Louisiana cities included. The publication reviews the 1980 employment situation in the states and concludes that labor force and employment growth slowed down during the year. A series of twenty-six tables provides a variety of statistical data.

• *A Guide to Seasonal Adjustment of Labor Force Data*, Bulletin 2114 (Washington, D.C.: U.S. Government Printing Office, 1982), $2.00 (stock no. 029-001-02643-9).

The vast number of statistical series prepared by federal agencies is a tremendous asset to business and economic researchers. One of the terms frequently used with various statistics is "seasonally adjusted." While the researcher may understand a statistical series such as retail sales, unemployment and gross national product, he is often confused by the qualification "seasonally adjusted." This publication provides an explanation of this term as it relates to BLS labor force statistics such as employment, unemployment, and the unemployment rate.

• *Technology and Labor in Four Industries*, Bulletin 2104 (Washington, D.C.: U.S. Government Printing Office, 1982), $3.25 (stock no. 029-001-02692-7).

Meat products, foundries, metalworking machinery, and electrical and electronic equipment industries are considered in this study of the impact of technology on jobs and productivity. Each industry is discussed separately, with an assessment of how important new technology will be to that industry during the 1980s. The outlook for employment in each industry is considered, with changes foreseen for certain occupations. Out of the four industries included in this report, meat products will be the least affected by new technology, with metalworking machinery experiencing the most changes.

—Milt Ternberg

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Bun Song Lee and R. Craig Romaine

Stimulating Individual Work Effort: Will the Reagan Tax Cuts Do It?

The Reagan administration's Economic Recovery Tax Act of 1981 which will reduce income tax rates by 25 percent by 1984 represents a significant reform of the tax structure in the United States. The impact of this measure on the economy, however, will rely, in large part, on the response of the U.S. labor supply to the tax cuts embodied in the new law. This article reviews the theoretical implications of the labor supply effects of taxes, and surveys the existing empirical literature on the topic. The authors conclude that the bulk of the U.S. labor force, that is, primary male workers, will not significantly increase its work effort, but other segments of the labor force, such as women and high income individuals, may exhibit a larger response.

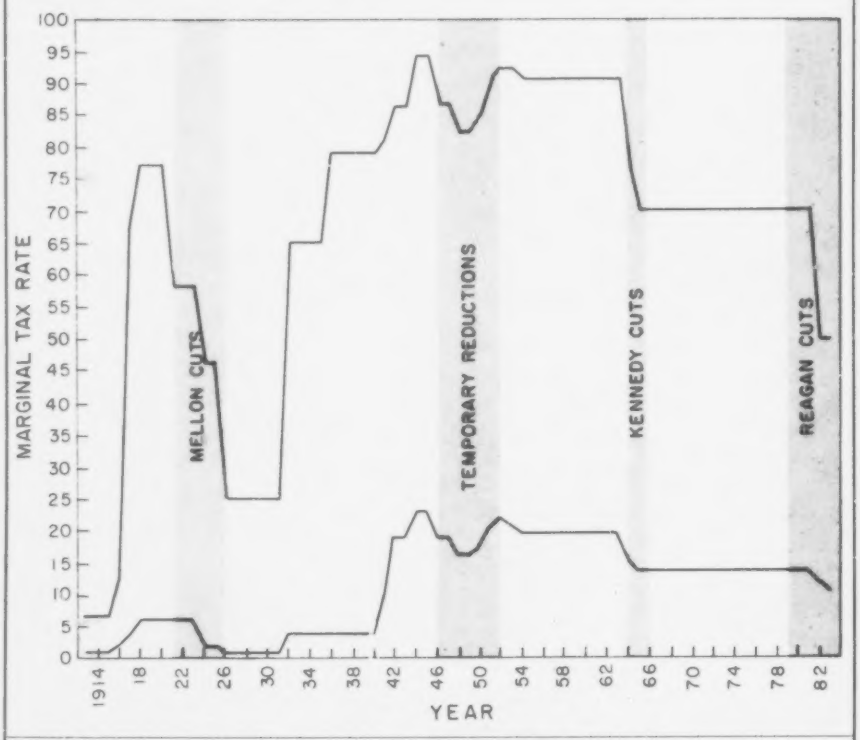
Within one year of his election to the presidency, Ronald Reagan managed to pass through Congress one of the most sweeping tax reforms in U.S. history. Only the third major tax cut since the federal income tax program was established, the Economic Recovery Tax Act of 1981 is designed to reduce marginal tax rates a total of 25 percent over three years. The economic growth and prosperity of the United States depend upon the economy's favorable response to this fiscal reform. In particular, the hope is that individual initiative will be restored by the increased returns to labor resulting from the lower tax rates on income. This article analyzes the potential of the Reagan tax cut program in stimulating individual work effort in the United States by (1) reviewing the two previous tax cuts of the century, (2) discussing the theoretical basis for the Reagan program, and (3) examining the research evidence regarding the impact of changes in tax rates on work effort.

HISTORICAL PERSPECTIVE

The foundation of the present income tax system in the United States was laid when the Sixteenth Amendment was ratified in 1913. Since that time, as Figure 1 illustrates, the general trend of increased tax rates has been significantly interrupted only three times by reductions in marginal income tax rates. The first was enacted in three stages between 1921 and 1926 upon the recommendation of Treasury Secretary Andrew Mellon who argued that the country's "higher surtax rates had 'already passed the collection point'." Mellon's reasoning still sounds familiar today: the country's tax rates were so high that they were (1) driving income away from productive uses into tax-exempt securities and (2) destroying business initiatives.[1] These "Mellon Cuts" reduced the maximum tax rate (including the surtax) from 77 percent to 25 percent by 1926.

From the early 1930s through the 1940s, U.S. tax rates resumed their upward trend, with the maximum tax rate reaching a high of 94 percent in 1944. In the late 1940s and early 1950s, some temporary, minor reductions in marginal tax rates were enacted. But the highest rate remained in excess of 80 percent until the mid-1960s.

FIGURE 1
Top and Bottom Marginal Tax Rates, 1913-1981



Source: Figure 1 is based on data compiled from: U.S., Office of the Federal Register, National Archives and Record Service, General Services Administration, *United States Statutes At Large* (Washington, D.C.: Government Printing Office, 1913-1981).

"The evidence is strong that the bulk of the labor force, that is, males between the ages of 20 and 59 who are supporting families, does not respond significantly to tax rate changes that alter take-home pay."

The second major tax cut in U.S. history was enacted in 1964 under the Kennedy administration. By this time, the top rate had soared to over 90 percent, while the lowest tax rate stood at 20 percent. The Revenue Act of 1964, commonly referred to as the "Kennedy Cuts," set the top marginal tax rate at 70 percent and the bottom rate at 14 percent. References are often made to the benefits of the Kennedy cuts as evidence in support of President Reagan's tax program. For instance, federal income tax revenues from upper income individuals more than doubled from 1964 to 1966 alone,[2] reflecting the fact that these individuals transferred their investment capital from tax shelters into taxable ventures because of the lower tax rates on incomes.

Last of all, the Economic Recovery Tax Act of 1981 represents the third historical reduction in marginal tax rates for the nation. The "Reagan Cuts," which replaced the 1964 Kennedy legislation on October 1, 1981, are designed to reduce all individual income taxes by a total of 25 percent over a period of three years. The previous high and low rates of 70 percent and 14 percent will be brought down to 50 percent and 12 percent, respectively, by 1984. In fact, the Reagan cuts will lower the top marginal tax rate to its lowest level since 1932. In nominal terms, President Reagan's tax cuts represent a sizeable change. It remains to be seen whether, in real terms, the anticipated benefits for individuals and private business will be erased by inflation

THEORETICAL BASIS FOR REAGAN CUTS

For the past fifty years, economic policy in the United States has been guided by the "Keynesian" school of economic thought. According to Keynesian economists, the government can "fine tune" the economy by manipulating government spending and tax policy. A decrease in government spending, they argue, can be used to lower the overall demand for goods and services and act as a curb on inflation. In contrast, a tax cut can be instituted as a means to raise spendable income, and hence stimulate the private demand for goods and services in a sluggish economy. Thus, the Keynesian theorists focus on the demand side of the economy.

The Reagan tax program, however, is based on what is frequently termed the "supply side" model, a modern version of pre-Keynesian, or classical economics. As the name implies, the theory places importance on the supply, or production, side of the economy. Therefore, the supply side theorists argue that a tax cut should not be designed to increase demand, but rather to increase the supply of goods and services by encouraging *production factors* to increase their levels of input.

This article focuses on the impact of tax cuts on the input level of one such production factor—labor. Obviously, different people will respond in varying ways to a reduction in tax rates. The immediate effect of a tax cut on everyone, of course, would be to raise take-home pay. Rather than reap this automatic benefit of a tax cut, some individuals might prefer to simply maintain their previous level of take-home income by reducing their work effort and enjoying more leisure time. Just as importantly, however, reduced marginal tax rates increase the reward for an extra hour of work. Because of this fact, some individuals would probably decide to work more, preferring to give up some leisure time in return for the increased monetary rewards available. Finally, others would probably be indifferent to a tax cut and not be motivated to change the amount of time they work at all. In other words, it is not clear *a priori* whether a tax cut would cause the overall work effort of the labor force in an economy to increase, (as the Reagan argument suggests), decrease, or remain unchanged. Consequently, it is necessary to observe empirically the response of the labor force to a cut in tax rates.

RESEARCH EVIDENCE ON TAX CUTS AND WORK EFFORT

There are many ways to attempt to measure the effect of tax cuts on work effort. One could simply ask a sample of individuals how they would respond to such a situation, one could analyze the behavior of individuals as a result of previous tax cuts, or one could try to statistically simulate how people might behave. Researchers have used each of these methods, utilizing varying sets of data covering an assortment of time periods, countries and population groups.

In order to predict what effect the Reagan tax cuts will have on the work effort of the average worker in the United States, it is necessary to examine the research evidence regarding the response of individuals to changes in the tax rate. Because there have been so few major tax cuts in the past, the evidence is scarce in this regard. Nevertheless, the more abundant evidence concerning whether *high tax rates* have been a *disincentive* to work effort in the past, does shed some light on what the response of the labor force might be if these disincentives were removed. There are two main bodies of research on the subject. The first consists of studies that have examined individual demographic sub-sectors of the labor force, such as primary male workers and married women. The second group analyzes the behavior of workers according to various income group levels. The major findings of these studies are summarized below.

Evidence on Demographic Sub-Sectors of the Labor Force

Primary male workers. During the 1950s, at least three notable studies were undertaken to consider the relationship between income taxes and the incentive to work of selected groups of primary male workers. In each case,

the individuals surveyed were asked whether tax rates were a disincentive to their work effort. Thomas Sanders, who interviewed 160 business executives in the United States, reported that his findings offered overwhelming support for the conclusion that taxes did not significantly affect the work effort of these individuals. While the executives interviewed complained about high taxes, they did not alter their work behavior as a result of increased taxes.[3]

Robert Davidson, the author of the second study, found similar results. After interviewing seven surgeons he concluded that increased taxes had not influenced their work incentives. Davidson argued that the doctors continued working the same number of hours, in spite of the decreased value of their take-home pay for an extra hour of work, because of the substantial non-monetary incentives to work, characteristic of their profession, including the enjoyment and satisfaction of their work.[4]

In the third study, George Break surveyed 306 accountants and solicitors in Great Britain. Eighteen percent of this group reported disincentives to work, as a result of higher tax rates. However, many of these responses were vague or contradictory. After eliminating those of doubtful validity, Break estimated that only 13 percent of the professionals he interviewed experienced a real disincentive effect on working from high tax rates. The disincentives did seem to be more pronounced among those who faced the highest marginal tax rates.[5]

Two other more recent studies have examined the impact of tax cuts on the level of work effort of primary male workers. Unlike the earlier group based on the personal interview technique, these two latter studies based their findings on an analysis of cross-sectional data. In the first study, Marvin Kosters examined how the number of hours an individual works is influenced by his wage rate, his wife's wage rate, and his non-employment income.[6] His results reveal that for every 10.0 percent rise in wages, the number of hours an individual works will fall by about 0.8 percent, an extremely weak response. In a similar study, R. E. Hall found the same result: primary male workers are essentially insensitive to changes in the net wage.[7] Since the direct effect of a tax cut is to change a worker's net, or after-tax wage rate, these conclusions suggest that a tax cut would not greatly alter the work behavior of primary male workers.

In light of the fact that these five studies used varying data samples and research methodologies, it is significant that their conclusions are virtually unanimous. The evidence is strong that the bulk of the labor force, that is, males between the ages of 20 and 59 who are supporting families, does not respond significantly to tax rate changes that alter take-home pay. The logical explanation for this behavior is simply that the financial and family obligations of this particular segment of the labor force, plus institutional rigidities which do not allow an individual worker's hours to fluctuate, force primary male workers to maintain stable work schedules in spite of any tax-induced incentives to change their work hours.

Married women. A great deal of research has recently been done on an increasingly significant segment of the work force, married women. The Kosters and Hall studies cited above, for example, also report findings on the response of married women to tax cuts. Kosters found that a decrease in tax rates that results in a 10.0 percent increase in net wages might result in as much as a 10.0 percent increase in the labor force participation rate of married women. Likewise, in his study, Hall reported that married women appear to be strongly affected by changes in the net wage. Consistent with both of these studies are the findings of a third researcher, Harvey Rosen, which reveal that married women tend to work 10.0 percent more hours per week for every 10.0 percent increase in their net wages.[8]

Again, the evidence appears to be strong. Unlike primary male workers, married women seem to be very responsive to tax cuts that increase their take-home earnings. This may be due in large part to the fact that married women often have more of a choice as to whether or not to work. In many cases a wife's income is secondary or supplemental to that of her spouse. Additionally, the majority of part-time workers are female. As the incentive to work more hours rises, these part-time workers may have more flexibility in either working additional hours or converting to full-time workers. Consequently, married women tend to have more leeway than their husbands in adjusting their work habits.

"Unlike primary male workers, married women seem to be very responsive to tax cuts that increase their take-home earnings."

Evidence on Income Groups

Two major studies since the mid-1960s have examined the effect of a tax cut on work effort with respect to income groups. The first, by Barlow, Brazer and Morgan, considered only upper income individuals. The authors interviewed almost 1000 individuals who had incomes of $10,000 or higher in 1961 (considered to be in the upper income bracket at the time). One eighth of the sample reported that they actually reduced their work effort because of higher taxes. In the authors' opinion, only half of this group experienced a "plausible" disincentive effect. As in the Break study on accountants cited above, those individuals facing the highest marginal tax rates were found most likely to report disincentives to work as a result of a tax increase. Barlow, Brazer and Morgan concluded that people are aware of taxes and do not enjoy paying them, but there are many more powerful motives affecting work behavior than taxes.[9]

The most recent study on the relationship of tax cuts and work effort was commissioned by the Senate Finance Committee for use in its deliberations concerning the passage of President Reagan's tax package in 1981. It was conducted by Michael Evans who examined the impact of the 1964 Kennedy tax cuts on the work effort of

"Nevertheless, the small amount of evidence reviewed here on income groups appears to suggest that upper income groups are quite responsive in their work effort as a result of tax rate changes, while middle and lower income groups are also responsive, but less so."

lower, middle and upper income individuals.[10] Evans found that the 1964 cut in marginal tax rates had a significant effect on the work effort across all income groups. Based on his findings, he concluded that a 10.0 percent reduction in marginal tax rates will lead to a 1.0 percent increase in work effort for lower income persons ($4,000-$9,000); a 2.5 percent increase for middle income persons ($28,000-40,000); and a more than 20.0 percent increase for individuals with incomes over $120,000. (Evans does point out, however, that this latter figure may be overstated because of statistical complications.) While these findings offer strong support for the Reagan tax program, economists Steven Braun,[11] Albert Ando,[12] and others have expressed reservations regarding the statistical basis for Evans' work.

Nevertheless, the small amount of evidence reviewed here on income groups appears to suggest that upper income groups are quite responsive in their work effort as a result of tax rate changes, while middle and lower income groups are also responsive, but less so. As suggested by the Barlow, Brazer and Morgan study, the higher the marginal tax rate faced by an individual, the more likely he is to experience work disincentives, and therefore the more likely he is to increase his work effort if this disincentive is removed by lowering the tax rate.

CONCLUSIONS

The research evidence on the effects of an income tax reduction on work effort, then, can be summarized as follows. First, primary male workers—the bulk of the labor force—do not, as a group, work more or less because of an increase in take-home wages resulting from a tax cut. On the other hand, married women, a growing portion of the labor force, do tend to increase the number of hours they work when their after-tax wage is increased. Second, upper income individuals, who face higher marginal tax rates to begin with, are very responsive to reduced tax rates in terms of the amount of time they are willing to work. In addition, middle and lower income groups may work more as a result of a tax cut, but certainly not with the same enthusiasm as the higher income group.

While these findings are important, they by no means can predict the full effect of President Reagan's tax policy. Even if the labor force does not increase its contribution to the production process, the lower tax rates could well have other possible benefits. For instance, it is likely that part of the so-called "underground economy" will be attracted back into the market economy. As the tax rates fall, non-productive uses of assets, such as tax shelters, will become less profitable and therefore free these assets for more productive uses. Increased incentives to save and invest may help to spur capital formation.

The literature which has been reviewed here is not conclusive as to whether or not the labor supply response to the Economic Recovery Tax Act of 1981 will be sufficient to have a powerful impact on the supply side of the economy. But it does suggest that the response could be positive, and significantly so for certain segments of the labor force. Indeed, the near future will provide an interesting test of economic theory and evidence.

[1]Roy G. Blakey and Gladys C. Blakey, *The Federal Income Tax*, (New York: Longmans, Green and Co., 1940), p. 202.

[2]Lawrence H. Meyer, ed., *The Supply-Side Effects of Economic Policy*, (St. Louis: Center for the Study of American Business, 1981), p. 61.

[3]Thomas H. Sanders, *Effects of Taxation on Executives*, (Boston: Harvard University Graduate School of Business, 1951), p. 1-14.

[4]Robert Davidson, "Income Taxes and Incentive: The Doctor's Viewpoint," *National Tax Journal* 6 (September 1953): 293-297.

[5]George F. Break, "Income Taxes and Incentives to Work: An Empirical Study," *American Economic Review* 47 (1957): 529-549.

[6]Marvin H. Kosters, "The Effects of an Income Tax on Labor Supply," in *The Taxation of Income from Capital*, ed. by A. Harberger and M. Bailey, (Washington, D.C.: The Brookings Institution, 1969), pp. 301-324.

[7]R. E. Hall, "Wages, Income, and Hours of Work in the U.S. Labor Force," in *Income Maintenance and Labor Supply: Econometric Studies*, ed. by Glen Cain and Harold Watts, (Chicago: Rand McNally, 1973), pp. 102-162.

[8]Harvey S. Rosen, "Taxes in a Labor Supply Model with Joint Wage-Hours Determination," *Econometrica*, 44 (May 1976): 485-587.

[9]Robin Barlow, Harvey E. Brazer and James N. Morgan, *Economic Behavior of the Affluent*, Studies of Government Finance (Washington, D.C.: The Brookings Institution, 1966), pp. 2-7.

[10]Michael K. Evans, "An Econometric Model Incorporating the Supply-Side Effects of Economic Policy," in *The Supply-Side Effects of Economic Policy*, pp. 56-64.

[11]Steven Braun, "Discussion of the Evans Paper," in *The Supply-Side Effects of Economic Policy*, pp. 91-101.

[12]Albert Ando, "Discussion of the Evans Paper," *The Supply-Side Effects of Economic Policy*, pp. 103-111.

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RESEARCH NOTES

EDITOR'S NOTE: Our department, RESEARCH NOTES, aims at disseminating timely and useful business and economic information, originating from the current research activities of LSU faculty and other research professionals, that would be of interest to the greater Louisiana business community. The Editorial Board of the LBR *welcomes the submission of research summaries to be considered for publication that consist of one to two paragraphs that (1) state the central research question of the research project; (2) explain the methodology and data base used in considering the research question; (3) outline the principal findings of the study; (4) conclude by identifying the policy impact of those findings. All submissions should be sent to the editor, Louisiana Business Review, Louisiana State University, CEBA 3139, Baton Rouge, LA 70803.*

Income Redistribution Policies Not Always Beneficial

The effects of income redistribution policies in the United States today may result in more harm than good, according to Walter E. Williams, a professor of economics at George Mason University, Fairfax, Virginia.

In "Income Redistribution and Incentives," presented to the Association of Private Enterprise at Ball State University last February, Dr. Williams cites three major income redistribution programs that actually perpetuate the ills they are designed to cure: unemployment compensation, social security and welfare. He states that instead of increasing the incentive for individuals to find or keep a job, the major portion of these programs may be so generous that they discourage workers from re-entering, staying in or entering the work force.

Williams also notes that the minimum wage law "is one of the most anti-poor laws on the books" today. The current minimum wage law of $3.35 is so high, he explains, that it acts as a hiring disincentive for employers who will not hire individuals whose productivity is valued below that level. This effect, Williams argues, discriminates against the "least fortunate members of the labor force, the most unskilled."

Dr. Williams concludes that while support for these income redistribution programs by the American people is widespread, there seems to be no justification for the amount of transfers taking place today. Because income subsidies now seem to be a way of life for many individuals, Williams recommends introducing incentives which will teach these people to help themselves. To do otherwise, he suggests, would be to perpetuate a form of income "slavery" in this country, or simply "an institution, backed by government, whereby one man takes the fruits of another man's labor."

Retired Acccountants Satisfied With Life, Study Finds

Retired accountants appear to be satisfied with all aspects of retirement, according to a recent study of Louisiana CPAs. In "Retired Accountants: A Question of Satisfaction," Dr. C. E. Cato of Louisiana Tech University, Dr. Owen B. Moseley of Murray State University in Murray, Kentucky, and Dr. Dan R. Ward, of the University of Southwestern Louisiana study the effect of retirement on accountants and compare their satisfaction levels with retired workers in general.

The findings of the study are based on the responses the authors received to a questionnaire mailed to sixty retired members of the Louisiana Society of CPAs. With the forty-three percent usable responses, Drs. Cato, Moseley and Ward constructed a retirement index for each respondent's retirement activities, financial condition, health, and personal associations.

The authors conclude that retired accountants were most satisfied with their financial status and least satisfied with their health. In contrast, retired employees in general were most satisfied with their personal associations and least with their financial condition. Of particular interest, the authors find that those retired accountants who are involved in volunteer work related to their profession appeared to be much more satisfied with what they were accomplishing in their retirement years, and feeling better about it, than the rest of their peers.

Government Policies Towards Heavy Oil Studied

Federal interest in special policies toward heavy oil depends on society's interest in insulating the country from large energy price shocks, explain Drs. Loren C. Scott and James A. Richardson, two LSU economists, in a paper entitled "Domestic and International Implications of Federal and State Policies Toward Heavy Oil" which they presented at a recent meeting of the International Research Center for Energy and Economic Development.

Drs. Scott and Richardson, whose purpose was to analyze theoretically the impact of various federal and state policies toward heavy oil, also found that federal intervention in heavy oil recovery or refining must ultimately benefit international owners of heavy oil resources, if the objective of reducing price shocks is to be met. In addition, federal support for heavy oil recovery or refining depends on a benefit-cost calculation, which is extremely difficult to estimate.

Finally, the authors conclude that states wishing to maximize their severance tax collections will find they need to tax heavy oil at a lower rate than light oil. □

Cornelia M. Crabb

LOUISIANA BULLETIN

Baton Rouge, Lafayette Lead Nation in Average Pay Hikes

Baton Rouge and Lafayette led the nation in annual pay rate increases for 1979-1980, according to a recent report published by the Bureau of Labor Statistics of the U.S. Department of Labor.

Baton Rouge tied with Midland, Texas for first place with its average annual pay increase of 14.6 percent. Lafayette ranked third in the nation with an increase of 14.5 percent for the 1979-1980 period. Other above national average increases in the state recorded include Alexandria (13.8 percent) and Lake Charles (12.1 percent).

Overall the average annual salary for the United States increased by 9.2 percent. Although the average annual pay in Louisiana rose by 11.7 percent to a level of $14,342 in 1980, it still remained just below the national average of $14,363.

Lafayette's average 1980 income of $15,749 ranked as the fourth highest among the Standard Metropolitan Statistical Areas (SMSAs) surveyed. Average annual pay levels in Lake Charles ($15,476), Baton Rouge ($15,275) and New Orleans ($14,390) also remained above the national average for 1980, while average incomes in Shreveport ($13,287), Monroe ($12,920) and Alexandria ($11,941) were below this figure.

Job Placement in Louisiana Tops

A representative of the U.S. Department of Labor (USDL) recently expressed his delight with Louisiana's performance in placing its residents in jobs.

At the 1982 meeting of the International Association of Personnel in Employment held in Shreveport, the USDL Regional Administrator in Dallas, Floyd Edwards, revealed that Louisiana ranked fourth in the nation and first in its region in job placement during the final quarter of 1981. Edwards further predicted that Louisiana will be ranked as number one in placement, both regionally *and* nationally in 1982.

Edwards congratulated Governor Treen for the performance of Louisiana's Department of Labor. "In this period of economic recession it is more important than ever," the letter states, "that we obtain for the taxpayers a good return on their investment . . . That certainly is being done by the Office of Employment Security. The citizens of your state can be assured that their Job Service Agency is offering services to them that can only be described as excellent."

Louisiana First in Per Capita Environmental Protection Spending

Louisiana has emerged as one of the national leaders in environmental protection spending for 1981, according to figures compiled recently by the state's Department of Natural Resources.

Since the establishment of the Office of Environmental Affairs within Louisiana's Department of Natural Resources in 1979, the state has increased its annual expenditures on environmental protection from $1.5 million to $18 million. Prior to that time, Louisiana spent less than any other state in the nation on environmental regulation.

Within a sample of ten comparable states, selected according to their location or the nature of their industrial activities, Louisiana ranked first in state per capita expenditures for environmental regulatory programs in 1981.

Louisiana, with its $2.31 per resident expenditure level, ranked approximately 42 percent above Illinois (with $1.63), 60 percent above New Jersey (with $1.44), and 67 percent above Wisconsin (with $1.38).

The state was also a leader in the percentage of its operating budget devoted to environmental regulatory programs (0.0015 percent), topped only by New Jersey (0.0017 percent).

According to Natural Resource

Department Secretary Frank P. Simoneaux, the financial support for regulatory programs is an indication of Louisiana's, and his department's, concern for a clear and safe environment. "Efforts are now being directed to a full strength enforcement program," he said.

1981 Construction Spending Up 45 Percent

Louisiana's 1981 nonresidential new construction total of $960 million was 45 percent above its 1980 level, reports the January-February issue of *Louisiana Contractor*.

During the first nine months of 1981, construction industry spending showed a 23 percent gain over 1980, and in December 1981, spending by Louisiana's contractors reached a record high.

"This is a remarkable performance for the industry in Louisiana, in a month which may come to be recognized as the bottom of a current nationwide recession," remarked Joseph T. Donnelly, president of American General Contractors in the state.

Industrial, office and commercial construction spending in the private sector each increased by nearly 100 percent in 1981 over the previous year. Even more impressive, the value of hotel and motel construction increased seven-fold over figures recorded in 1980. However, construction spending in the public sector, especially for medical, educational and recreational facilities, continued to decline throughout 1981.

East Baton Rouge and Jefferson parishes exhibited the largest boost in construction spending for 1981, with increases of 42 percent and 47 percent, respectively.

Computerized Carpooling To Be Tested in Shreveport

The Shreveport Chamber of Commerce has proposed an employer-based, computer match-up carpooling system to help alleviate rush hour traffic, gasoline costs and car maintenance problems, according to the April 1982 issue of *Shreveport* magazine.

Seminars and workshops devoted to the program will begin in the city on July 8. According to Preston Friedley of the Chamber of Commerce, the pilot program will run from September until the end of the year.

Rex Malbee, transportation planner for the Shreve Area Council of Governments (SACG), says the program will be put into the hands of local employees in the attempt to generate more participation. The SACG was awarded a grant by the State Energy Conservation Office in the Department of Natural Resources to implement the program in Caddo, Bossier and Webster parishes.

Carpool members will be initially assigned by computer, using the computer facilities at LSU Shreveport, on the basis of geographic location and work schedules.

Potential benefits of this program to individual workers include monetary savings, as well as the chance to become better acquainted with fellow workers. For the employers, the carpooling system should result in reduced parking congestion, more available parking spaces as companies grow, and better attendance on the job due to peer pressure inherent in the carpooling program.

DUCA to Administer City Development Grant

Louisiana's Department of Urban and Community Affairs (DUCA) recently revealed it has been appointed by Governor Treen to administer the Small Cities Community Development Block Grant Program. The grant, received from the U.S. Department of Housing and Urban Development (HUD), totals $30,837,000. Under President Reagan's "new federalism," states now have the option of administering the block grant program within "nonentitlement areas," or municipalities with a population of less than 50,000. All of Louisiana's parishes, except East Baton Rouge, Jefferson and Orleans, are eligible for funds from the program.

Linton Ardoin, secretary of DUCA, said the state's funds will be used primarily to finance economic development, public facilities and housing rehabilitation in the state.

Of the $30,837,000 available, approximately $13,213,000, or 43 percent, has been set aside for prior multi-year commitments under HUD. The remaining amount, or $17,624,000, is the actual amount available for new projects in fiscal year 1982.

Cities which apply for grants under the program will be evaluated in terms of their population size, socio-economic factors, proposed activities, and ability to carry out their proposed program.

Highway Budget Sets Record

Louisiana succeeded in topping its record-breaking highway budget of 1980-81 with the 1981-1982 figure of $774,653,000, according to the February 1982 issue of *Louisiana Contractor*.

The new budget includes the most comprehensive highway construction program ever approved by the legislature and governor for the state.

The top priority of the Office of Highways is the completion of Interstate 49, or the North-South Highway, which should cost the state $1.184 billion over the next five years.

□

Susan M. Collins

COLLEGE HIGHLIGHTS

Fall 1981 Business Graduates Enjoy Plentiful Interviews, High Starting Salaries

More job recruiters than ever before visited the LSU College of Business Administration during the fall 1981 semester, according to George R. Ferguson, Placement Director for the Center of Engineering and Business Administration on the Baton Rouge campus.

A salary survey of business students graduating in December 1981 revealed that among those receiving bachelor's degrees, those students majoring in quantitative methods were offered the highest average starting salaries in the college, $1494 per month. Accounting and finance majors tied for a close second place with average annual starting salaries of $1462 per month. The highest single offer accepted of $2155 was made to a finance major; the lowest single offer accepted of $640 per month, to a marketing major.

Honors and Awards

• Leila O. Schroeder, a professor of finance at LSU and specialist in business law, has been awarded the LSU Foundation Distinguished Faculty Fellowship for 1982-1983.

• Al Burns and Dan Sherrell, associate professors of marketing at LSU, received the "Best Innovative Simulation Paper" award at the 1982 Association for Business Simulation and Experiential Learning Conference in Phoenix, Arizona. Their paper, "A Microcomputer Simulation for Teaching Retail Location Strategy," will be published in the June 1982 issue of the *Journal of Experiential Learning and Simulation.*

• R. Eric Reidenbach and Terence A. Oliva, assistant and associate professors of marketing at LSU, respectively, received the best macro-marketing and general theory paper awards for their co-authored papers "A Pre-Analytic Approach to Modeling Macromarketing Behavior" and "An Extension of General Living Systems Theory as a Paradigm for Analyzing Marketing Behavior" which they presented at the 1982 American Marketing Association Special Conference on Marketing Theory.

Invited Papers, Conferences

• Edmund R. Gray, a professor of management and the Management Department chairman at LSU, was asked recently to present a paper at the Small Business Institute (SBI) Directors meeting on the national award-winning SBI consulting report prepared by four LSU M.B.A. students under his direction last year. Dr. Gray received a plaque from the SBI group for directing the winning team.

Recent Faculty Publications

• Robert E. Martin and Susan J. Linz, assistant professors of economics at LSU, are the co-authors of an article entitled "Soviet Enterprise Behavior Under Uncertainty" published in the *Journal of Comparative Economics* (March 1982).

• Leila O. Schroeder, a professor of finance at LSU, has had her new textbook published: *The Legal Environment of Social Work* (New York: Prentice-Hall, January 1982).

• Roger L. Burford, a professor of quantitative business analysis at LSU, has co-authored the following three articles with Joseph Katz of the University of Arizona: "A Comparison of Estimators of Output Multipliers from Incomplete Input-Output Data," *The Annals of Regional Science* (July 1981); "The Effect of Aggregation on the Output Multipliers in Input-Output Models," *The Annals of Regional Science* (November 1981); "A Method for Estimation of Input-Output-Type Multipliers when No I-0 Model Exists," *Journal of Regional Science* 21 (2), (1981).

• Anthony J. Daboub, an instructor of management at LSU, presented a paper at the 1982 meeting of the Southwestern Academy of Management in Dallas which was subsequently published in the *Southwest Division Academy of Management 1982 Proceedings* (Dallas, Texas, March 1982).

• Edmund R. Gray, a professor of management and the chairman of the Department of Management at LSU, has co-authored the second edition of his management textbook with George A. Steiner of the University of California at Los Angeles and John B. Miner of Georgia State University: *Management Policy and Strategy: Text Readings and Cases* (New York: Macmillan Publishing Co., Inc., 1982).

LSU Business Fraternities Win Awards

The LSU Beta Xi Chapter of Pi Sigma Epsilon, the national marketing fraternity, won four awards at its national convention in Atlanta recently. The chapter placed second out of ninety in the top chapter competition due to its undertaking of complex sales, marketing and community service projects. Its successful LSU staff-student telephone directory ad sales project, put the LSU group in first place in the top marketing project competition.

The LSU chapter of Phi Beta Lambda, the national business fraternity, swept the competition at the fraternity's state meet, held in Lafayette in March. Of the ten events it entered, the LSU chapter returned with eight first-place and four second-place awards. □

IN APPRECIATION

The **Louisiana Business Review**, a quarterly publication of the Division of Research in the College of Business Administration at Louisiana State University, is dedicated to providing worthwhile and timely information on local, state and national economic developments of interest to members of the Louisiana business and government communities. This objective is being achieved by presenting high quality, readable articles written by knowledgeable representatives from business, government and academia. The Division would like to express its sincere appreciation to the following companies whose valuable contributions have made this publication possible.

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Note to librarians: Beginning with the Spring 1982 issue of the new quarterly *Louisiana Business Review* (*LBR*), we are reinstating the volume and numbering system of the old monthly *LBR*. The last issue of the monthly *LBR*, vol. 44, no. 12, was published in December 1980. For cataloguing purposes, please assign the following volume and issue numbers to the first four issues of the quarterly *LBR* as follows: Spring 1981 (vol. 45, no. 1), Summer 1981 (vol. 45, no. 2), Fall 1981 (vol. 45, no. 3), Winter 1982 (vol. 46, no. 1). We apologize for any inconvenience this change in policy may cause you.

—The Editor

SUMMER 1982

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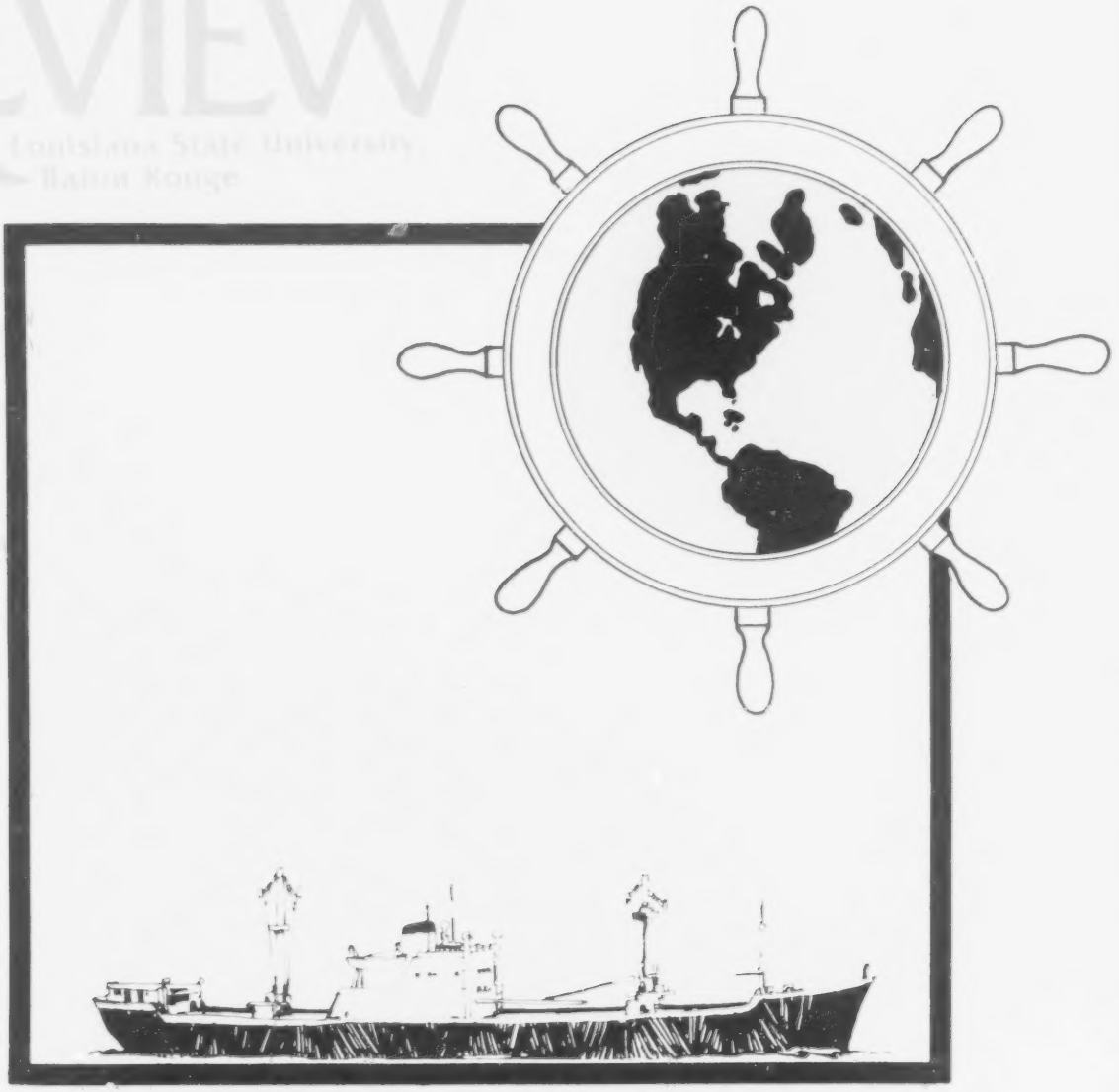

Neptune's Brave New World

LETTER FROM THE EDITORIAL BOARD

Louisiana enjoys the benefits of being at the mouth of the vast Mississippi River system on the Gulf of Mexico. Hundreds of thousands of Louisianians owe their livelihoods to this vital location. Although maritime issues and problems have received increasing attention from the media in recent years, this coverage has been selective and limited. Except for LSU's reputable Center for Wetland Resources, the state's universities allocate few resources to river and ocean-related research and curricula. This is especially true in the area of maritime business and economics. Although Louisiana straddles the major navigable river of the world and contains two of the five largest ports in the United States, the state's major research and educational university has no research program, nor courses, nor faculty in maritime economics. Because many recent developments in the maritime field have important implications for our readers, this issue of the *Review* is devoted to an exploration of "Neptune's Brave New World."

Today the world's oceans are used for many different purposes. Commercial, recreational, fishing, and military vessels move on, in, and over oceans. Various species of fish are taken from the water column and the seabed. Holes are poked into the oceans' floors to extract oil and gas. Valuable minerals can now be scooped off the deep seabed. Research vessels ply all parts of the ocean, taking samples from the water column, the seabed and the subseabed. For hundreds of years the accepted international law applicable to all of these activities was characterized by narrow extensions of coastal state control over the oceans (3 miles) and a broad expanse of high seas freedom. Although no individual or country "owned" the oceans, every country or individual was free to utilize the resources to the best of its or his ability. The ten-year long international negotiations on the Law of the Sea have important implications for all U.S. citizens, but especially for those in Louisiana who are so dependent on the ocean for their livelihood. In the "Murky Waters of the Law of the Sea," David B. Johnson, LSU professor of economics, outlines the historical developments behind, and summarizes the major provisions of, the draft treaty produced by the Law of the Sea negotiations.

Maritime activity, resulting from the transfer of cargoes which have been towed down the world's largest navigable inland waterway system (19,000 miles) to ocean vessels destined for posts around the globe, has made the Port of New Orleans the largest in the country (in terms of total tonnage handled) and the Port of Baton Rouge the country's fifth largest (recently nudged from fourth place by Alaska's Port of Valdez). Last year, the Superport, or the Louisiana Offshore Oil Port, began transferring oil from large ocean vessels whose deep drafts prohibit entry into other U.S. ports.

Louisiana benefits greatly from the employment generated by these ports and other maritime activities. Many industries—including the vast petrochemical complexes located between Baton Rouge and New Orleans—have been attracted by the Mississippi River and its relatively inexpensive transportation advantages. Shipbuilding companies are located in the New Orleans area; the world's largest concentration of offshore oil and gas production is situated off the Louisiana coast. The co-mingling of the Gulf's waters with the land of Louisiana has produced the world's largest, and possibly most productive, wetlands area. Shrimp, oysters and various species of fish provide the resource base for very significant commercial and recreational fishing industries in Louisiana. Edward S. Reed, executive director of the Port Authority of New Orleans, in "Louisiana's Dynamic Ports" examines the growth of Louisiana's port system and discusses some of the future economic challenges facing the state, including the projected increase in coal exports and the impact of port charges and waterway user fees.

Many of us tend to reflect on ocean travel through the perspective of Humphrey Bogart traveling on a tramp cargo ship, or as a passenger on the Delta Queen taking a leisurely trip on the Mississippi. The cargo ship of the Bogart era, however, was probably a 40,000 ton ship. Today's modern vessels—especially tankers and some bulk cargo vessels—are 100,000 tons to 800,000 tons in size. Until the Louisiana Superport was constructed, these ships, when fully loaded, were too large to enter any port in the United States. Even today, due to depth limitations, ships as small as 70,000 tons cannot travel to New Orleans or Baton Rouge when fully loaded.

Cargo is now containerized, ships are mechanized, and vessels are controlled by electronics. Entire barges can be loaded on ships in mid-stream on the Mississippi and unloaded at Rotterdam, ready to travel up the Rhine River. Yet, some troubles are developing for the world's, and especially the United States', maritime fleets. The world's ocean-going vessels are now characterized by excess capacity and falling prices for their services. In this country, the maritime industry, beset with high costs, is surviving largely on subsidies and the Jones Act requirement that cargo traveling among U.S. ports be carried in U.S. flag vessels. Charles F. Lozes, a well-known maritime attorney in New Orleans, shares his views of the trends and problems in the shipping industry with *LBR* readers in an interview entitled "Storm Clouds Over Merchant Shipping" which was conducted by our newest editorial staff member, Joe Wagner.

In the Winter 1982 issue of the *LBR*, Fred Loy of the Louisiana Chemical Association argued that Louisiana's environmental policies are not lax. A different perspective is offered in this issue's FORUM column by Paul Hribernick, a maritime and environmental legal specialist at LSU, in "Environmental Regulation in Louisiana, Assessing a Record of Limited Success."

—The Editorial Board □

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Upcoming Issues

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Issue	*Due Date*
Spring 1983 (Housing and Real Estate)	October 15, 1982
Summer 1983 (Business Management)	January 15, 1983

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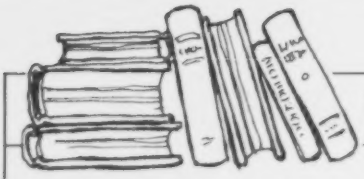


BOOK CORNER

Mapping River Industry

A Marine Atlas & Service Guide to the Lower Mississippi River: Baton Rouge to the Gulf of Mexico by Jeffrey C. Gregorie, Karen L. Hunter, and Timothy J. Moore (Baton Rouge, LA: Center for Wetland Resources, Louisiana State University, Baton Rouge, 1981), $25.00 (paperback).

Operational facilities on the lower Mississippi River, one of the world's largest ports, are quite complex. The *Marine Atlas* is intended to provide a quick reference to information about available services and facilities for fuel, supplies, barge fleeting, cargo handling, docks and anchorages, and repairs. Helpful information about structures, such as bridges, locks, and revetments, provides a lucid, easy-to-use, twenty-page summary of key navigation points. Authors Jeffrey C. Gregorie, Karen L. Hunter, and Timothy J. Moore of LSU's Center for Wetland Resources even furnish the reader with the telephone numbers of the many governmental agencies and pilot associations important to river use. All of the information sections are linked by mileage markers to a very colorful and clear series of forty-two maps of the lower river area.

Although such a publication would seem to be directed at a very specific audience, including river pilots, bargemen, and ship captains, the *Marine Atlas* contains a great deal of information that would appeal to the general reader, as well. Answers are provided, for example, to questions, such as: (1) What hours does the Lutcher-Vacherie Ferry Operate? and (2) What is the Coast Guard telephone number for reporting pollution? Shippers in particular, will find practical details on each of the individual port facilities located in the lower river area indicating what type of cargo handling equipment, warehousing, and railroad connections are available.

The *Marine Atlas* is a book that should find a niche in most pilot houses and in all types of support agencies that serve the Mississippi River. It would make an excellent manual for towboat operators and other occasional users of the port who need to know what to expect. Old hands will find it a useful background reference, and other users, such as newsmen, may find it an important quick reference tool.

—Norman Howden

Recent Maritime and Trade Documents of Interest

• U.S., Department of Commerce, International Trade Administration, *Metric Laws and Practices in International Trade: a Handbook for Exporters*, (Washington, D.C.: U.S. Government Printing Office, 1982), 113 pp., $4.75 (stock no. 003-009-00353-9).

Since the United States has yet to convert to the metric system, it is important for exporters to be aware of the metric requirements for products exported to foreign countries. This publication covers fifty-five countries and the European Communities. It explores the status of metrification in the world and how foreign packaging requirements affect U.S. products. The use of the metric system in each country is described, with the name and address of a local contact agency.

• U.S., Department of Commerce, International Trade Administration, *Sales Promotion Techniques for Marketing in Communist Countries*, (Washington, D.C.: U.S. Government Printing Office, 1981), 63 pp., $4.50 (stock no. 003-009-00352-1).

Trading with communist countries has become big business with U.S. companies. The number of ships calling at Louisiana's ports from communist countries testifies to the importance of this trade to the Louisiana economy. This publication is a guide to promoting U.S. products in Bulgaria, Czechoslavakia, East Germany, Hungary, the People's Republic of China, Poland, Romania, and the USSR. It describes specific strategies (e.g., market surveys, letters, company literature, catalog, and video-catalog shows, etc.) which have proven to be useful in communist markets. Most of the publication is devoted to a series of nineteen appendices providing answers to specific types of foreign trade questions.

• U.S., Department of Commerce, Maritime Administration, *Marine Subsidies*, (Washington, D.C.: U.S. Government Printing Office, 1981), 188 pp., $7.00 (stock no. 003-007-00108-8).

Fifty-seven nations of the world provide direct and indirect governmental assistance to their merchant fleets. This publication is a guide to the various forms of aid available including operating subsidies, construction subsidies, trade-in allowances, low-interest loans, interest subsidies, loan guarantees, accelerated depreciation, tax-free reserve funds, duty-free imports of materials needed for ship construction, cargo preference schemes, and cabotage restrictions. Data for each country includes the number of vessels in its merchant fleet, summaries of its foreign trade activities, and a description of the specific subsidies it provides.

• Walsh, Gerard P., Jr., *Laws Relating to Shipping and the Merchant Marine*, (Washington, D.C.: U.S. Government Printing Office, 1981), 873 pp., $8.50 (stock no. 052-001-00172-9).

Arranged chronologically, this volume includes a compilation of U.S. public laws relating to shipping and the merchant marine enacted by the 91st (1969) through 96th (1980) Congresses. The full text of each law is reproduced with its individual legislative history.

—Milt Ternberg

NORMAN HOWDEN, an information storage and retrieval systems specialist, is the program director of the Coastal Information Depository in the Center for Wetland Resources at LSU, Baton Rouge. MILT TERNBERG is the business librarian at LSU's Middleton Library, and a regular contributor to this column. □

Cornella M. Crabb

NATIONAL NEWS OF NOTE

Lloyd's of London Press Offers New Tracking Service

Lloyd's of London has launched a new merchant vessel tracking system on Prestel, the world's first commercial videotex service, according to the June 26 issue of *Port of New Orleans* magazine.

The service will track 22,000 vessels in 800 ports worldwide, including tankers, dry bulk carriers, unitized-container vessels, and general cargo ships. The available information will be updated three times a week and include each vessel's name, flag, deadweight tonnage, port of origin, port of destination, plus arrival details on any intermediate ports of call.

The new data base is available on a closed-user-group basis, on a variety of computer systems. For further information, write to Prestel in care of Logica, 666 Third Avenue, 19th floor, New York, New York, 10017.

Louisiana Comes Out Ahead In 1981 Tax Burden-Aid Tug of War . . . Maybe?

Although 22 states sent more money to Washington to fund federal grants-in-aid than they received under such programs in 1981, Louisiana was not among these "paying" states, according to the Tax Foundation's May 1982 issue of *Monthly Tax Features*.

Louisiana's tax burden of $.89 per dollar of federal aid ranked it 28 positions behind Texas, which paid the highest burden of $1.46.

Yet while Louisiana was a "receiving" state, its tax burden was above the average $.81 paid by other states in this category. The average "paying" state spent $1.20 for every dollar of aid from Washington.

Tax Foundation economists estimate that because states must provide matching funds to qualify for most federal aid programs, however, that in 1981 state and local governments had to come up with an additional $.42 for every aid dollar Uncle Sam gave them. Taking these extra aid costs into consideration, only two receiving states (Vermont and Alaska), plus the District of Columbia, came out ahead in the tax burden-aid tug of war!

'Computerized' Credit Cards May Be Ready

Two new types of computerized credit cards are moving out of the experimental phase and may be ready to challenge the more traditional credit cards widely accepted by retailers and restaurants, according to *Retail Technology* magazine.

The "smart card," developed in France, contains a microprocessor with a 16,000 bit memory capacity. It can function as a checkbook, a savings account passbook, or a credit and debit card. Testing of the card is being conducted in North Dakota and France.

The "not-so-smart" card, which was developed by the Drexter Technology Corporation of California, can store up to 40 million bits of information. But since it does not have a microprocessor, its ability to manipulate data is limited.

"The new cards look like ordinary plastic credit or debit cards," *Retail Technology* says. Yet, they have a special advantage in that they can be used as off-line electronic funds transfer debit cards. "As such they hold the promise to retailers of immediate payment at point of sale without the expense or bother of dial-up or on-line methods of card verification," explains the magazine.

Because of their security features and flexibility, the U.S. Department of Agriculture is even considering using computerized cards as substitutes for their paper-based food stamp program.

Pharmaceutical Industry to Experience Dramatic Growth in the 80s

The nation's pharmaceutical industry is expected to grow by $20 billion in the 1980s, according to a forecast prepared by SRI International's Health Industries Department.

Due to an improved political and regulatory domestic climate, the U.S. market for dosage-type prescriptions and over-the-counter pharmaceutical specialties will grow from $13.5 billion in 1981 to an adjusted $33 billion in 1988, making the nation among the largest and fastest-growing pharmaceutical markets in the world, the report states.

"By the end of the decade, U.S. firms are likely to dominate the world markets for the life-sciences and health care products and services," notes Leif Schaumann, senior consultant in the SRI's Health Industries Department.

Three factors, Schumann explains, will influence the performance of the U.S. pharmaceutical industry: (1) the "virtual absence of government pricing regulations," (2) the "more realistic government policies towards consumers and industry," and (3) the "strength and drive of the major U.S. pharmaceutical multi-national corporations."

Optimism surrounding the growth of the industry also extends into the area of research. The outlook for pioneer products, such as cures for degenerative diseases, cardiovascular problems, and psychosomatic conditions, is especially favorable.

DOL Pushes Voluntary Safety Programs

The Department of Labor has announced that its Occupational Safety and Health Administration (OSHA) has begun an experiment in seven southern states which may exempt effective voluntary safety and health programs from generally scheduled inspections for one year.

About 835,000 workplaces in Texas, Oklahoma, Arkansas, Alabama, Florida, Georgia, and Mississippi will take part in the experiment, which is being conducted from July 1982 to January 1983, according to Assistant Secretary of Labor and head of OSHA Thorne G. Auchter.

"The cooperative programs . . . will help augment OSHA's limited inspection force and allow the agency to concentrate . . . at worksites where the most hazardous conditions exist," Auchter continued.

He stressed that exemption does not imply a firm's ability to become lax regarding safety regulations. All participating firms must still operate according to OSHA safety and health standards.

□

David B. Johnson

The Murky Waters of Law of the Sea

During the spring of 1982, the decade-long negotiations to develop an international treaty for governing the world's oceans came to a close. An understanding of the historical developments leading to the final version of the "Law of the Sea" is important in assessing the implications of both the draft treaty provisions and the negotiations themselves. At least 60 countries must ratify the treaty before it enters into force. Not only how many, but also which of the over 160 participating countries that ratify the treaty will determine the true meaning of the Law of the Sea for the United States.

While the United States was preoccupied by the budget debate and the Falkland Islands' crisis during the spring of 1982, the media virtually ignored an event that could significantly shape international diplomacy and the distribution of international wealth and power for decades in the future. The final negotiating session of the eight-year marathon to develop an international treaty for governing the oceans—known as the Third United Nations Conference on the Law of the Sea (UNCLOS III)—had come to a close. When the final vote was taken at the conference, the United States, Turkey, Israel, and Venezuela voted against the treaty; 21 countries (including most of the countries in the Eastern bloc and Western Europe) abstained; and the remaining 136 countries voted for the treaty.

This vote—particularly that of the United States—was a watershed in the decade-long evolution of the Law of the Sea. The United States, which had entered the negotiations with an almost euphoric dedication to establishing "order" in the use of the world's oceans, had come to the realization that the final treaty that was being formulated was clearly against its interests. While previous administrations had recognized that the various drafts of the Law of the Sea treaty were not totally acceptable, the prevailing view was that, on balance, a treaty was needed in spite of the cost which this country would have to pay.

When the Reagan administration took charge of the negotiations, it ordered an overall review of the status of the Law of the Sea. After the United States returned to the treaty negotiations, the administration firmly stated that certain provisions were unacceptable and that they would have to be renegotiated. When the renegotiations failed, the United States voted against the adoption of the treaty; and on July 8, 1982 President Reagan announced his administration's decision to not sign the treaty in December 1982 when the participating countries will convene in Caracas for the formal treaty signing.

During the next two years, the signing countries will go through the internal process of ratification. Sixty countries must ratify the treaty before it enters into force. If the three other countries which voted against the treaty, plus the major countries which abstained, do not ratify the treaty, then it is likely that at least those provisions pertaining to deep seabed mining will wither away.

The purpose of this article is to explain the evolution of the Law of the Sea, to describe the significant provisions in the treaty, and to comment on the implications of the treaty for the United States.

THE ROAD TO UNCLOS III

Erosion of the Grotian Era

Although the legal regime governing the world's oceans is now undergoing radical surgery, oceanic law had been remarkably stable since Hugo Grotius published *Mare Liberum* in 1609. The Grotian Law, which was characterized by narrow "territorial seas" and free access to a broad span of "high seas," enabled those individuals or countries which were best able to utilize the ocean and its resources to do so.

Although the erosion of the Grotian Era began many years ago with the extensions of jurisdictions over coastal waters by many countries, the process was accelerated by President Truman's proclamation in 1945 which, while carefully avoiding making new claims of sovereignty, asserted that the United States had exclusive rights to explore and recover the mineral and hydrocarbon resources on or under the U.S. continental shelf (see Figure 1). Truman did not extend the territorial sea (i.e., the seaward extension of a nation's sovereignty over adjacent coastal waters) of the United States, he did not extend the fishing zone, and he did not challenge the right of countries to navigate in the high seas (i.e., the ocean waters beyond the 3-mile territorial sea).

The erosion of the Grotian Era was further accelerated during the 1950s when some countries claimed territorial seas of 12 to 200 miles. In the first attempt to resolve the disputes, 82 countries participated in the United Nations Conference on the Law of the Sea (UNCLOS I). No general agreement on the breadth of the territorial sea was reached, but the four conventions which emerged from the conference were generally favorable to the Western industrial countries and the coastal states (i.e., those nations that border the ocean). Grotian principles were cracked but not destroyed as countries continued to exert expansionist claims to their adjacent waters. An effort was made to repair the cracks by convening the Second United Nations Conference on the Law of the Sea in 1960 (UNCLOS II), but no agreement on the breadth of the territorial sea between the traditionalists (who favored a 3-mile territorial sea) and the expansionists (who favored territorial seas of 12 miles or greater) could be reached.

Enclosure Movement of the Seas

During the 1960s, the military bal-

Illustration by David I. Norwood

ance and the political geography of the world changed drastically. Approximately 50 new countries, all of them classified as developing nations, were created out of the Western colonial empires, and the Soviet Union emerged as a major maritime power. Most of the new countries joined many of the older developing countries in seeking broader coastal jurisdictions. By 1970, this "enclosure movement" of the seas had so gained momentum that only 30 of the world's 140 coastal states recognized a 3-mile territorial sea, 54 countries claimed a 12-mile territorial sea, and at least 10 claimed a territorial sea of 200 miles. In addition, many coastal states which recognized a narrow territorial sea were claiming multi-purpose resource zones extending 200 miles into the oceans.

Major maritime countries did not want the expansion of territorial seas to interfere with the rights of their vessels and planes to transit through straits and archipelagoes. An expansion of territorial seas from 3 to 12 miles would result in 120 straits being overlapped by territorial waters, including such important straits as Gibraltar (with its access to the Mediterranean), Malacca (located between the Malay Peninsula and Sumatra), Lombok (which connects the Indian Ocean and the Java Sea), Hormuz (the strait leading out of the Persian Gulf), and Bab el Mandeb (the southern entrance to the Red Sea).

Seabed Minerals Issue

In addition to expanding territorial seas, the significance of another phenomenon, which was to play a pivotal role in the Law of the Sea negotiations, gradually became known to developed countries and, subsequently, to developing countries. Manganese nodules—which range from the size of a grain of sand to that of a basketball—lie on the seabed or ocean floor (see Figure 1). These nodules, which contain manganese, copper, nickel, cobalt, and molybdenum, were discovered in 1873 during the scientific research expedition of the H.M.S. Challenger, but were neglected for almost 100 years until the higher real prices of the minerals and advanced technology made their commercial development possible.

Developing countries seized on the minerals issue as one way of implementing the New International Economic Order, a movement supported by many developing countries which aims to realign the world's economic resources through (1) a transfer of those resources from the United States and other developed countries to the developing countries, and (2) an increase in the representation of the developing countries in international organizations that are involved in managing those resources. UNCLOS III presented the developing countries with their first significant opportunity to put into effect the type of measures envisioned by proponents of the New International Economic Order.

The Grotain principle was to be challenged not only by the enclosure movement of the seas by the coastal states but, now, for the first time in modern peacetime history, the traditional freedom of the high seas was to be significantly restricted. Although there are many additional and related issues, the two primary causes for the eight-year-long negotiations of the Third United Nations Conference on the Law of the Sea were the enclosure movement of the seas by the coastal states and the battle for the control of the deep seabed minerals.

Call for UNCLOS III

The call for the Third United Nations' Conference on the Law of the Sea was initiated in 1967 by a speech given by Arvid Pardo, the U.N. ambassador of Malta. Ambassador Pardo called for a third Law of the Sea conference to negotiate the fundamental principle that "... the seabed and the ocean floor are a common heritage of mankind and should be used and explored for

peaceful purposes and for the exclusive benefit of mankind as a whole."[1] The term "common heritage of mankind" was used by President Nixon when he announced U.S. support for these international negotiations, but the phrase subsequently became a political slogan of the developing countries as they attempted to wrestle concessions from the western industrial nations.

THE CONTENTS OF THE PROPOSED TREATY

The first substantive negotiating session of UNCLOS III was held in Caracus, Venezuela in 1974, and numerous sessions have been held since that date. The most recent one was held in Geneva in the spring of 1982. Approximately 160 countries have participated in UNCLOS III. The conference presidents and the major committee chairmen have all been from developing countries; the current president of UNCLOS III is Tommy T. B. Koh of Singapore.

The 175-page UNCLOS III draft treaty covers a dozen major issues and hundreds of minor ones. Table 1 summarizes the most significant provisions of the treaty, which are explained in more detail below.[2]

Territorial Sea and Passage Through Straits

From the early sessions of UNCLOS III, there was a general consensus that the 3-mile territorial sea should be extended if satisfactory arrangements could be established for ship and plane travel through and over straits. In order to satisfy the desires of those countries that favored a 200-mile territorial sea, the concept of establishing a relatively narrow territorial sea, coupled with a relatively wide economic zone, captured the attention of some countries during the 1960s. This concept was further refined during UNCLOS III, resulting in the conference voting to establish a territorial sea of 12 miles.

As the concept of a 12-mile territorial sea gathered supporters, the United States, and many other maritime countries, wanted UNCLOS III to adopt the principle of free transit which would permit ships and aircraft to travel from one part of the high seas to another unmolested and without prior notification. The conference, however, adopted a modified version of the doctrine of "innocent passage" which states that passage through and overflight above straits is permitted if such passage is "innocent" (i.e., it is not prejudicial to the peace, good order, or security of the coastal state). Research activities, fishing, military exercises, or pollution-producing actions are to be prohibited in these straits.

Ocean Resource Development

Exclusive Economic Zone. Agreement on a territorial sea of 12 miles was made possible only by the conference's agreeing that coastal states could exercise control over maritime and mineral resources located in a wider band. The Exclusive Economic Zone, which was created to satisfy these desires, is to extend 200 nautical miles beyond the coastal state's shoreline. In the Exclusive Economic Zone the coastal state is to have exclusive rights to establish artificial islands, manage fishing stocks, and to explore and mine for natural resources on or beneath the seabed floor. If a coastal state's continental margin (i.e., the natural prolongation of its land territory to the deep seabed—see Figure 1) extends beyond 200 nautical miles, the coastal state may extend its control over the non-living resources of the seabed and subsoil as far seaward as 350 nautical miles.

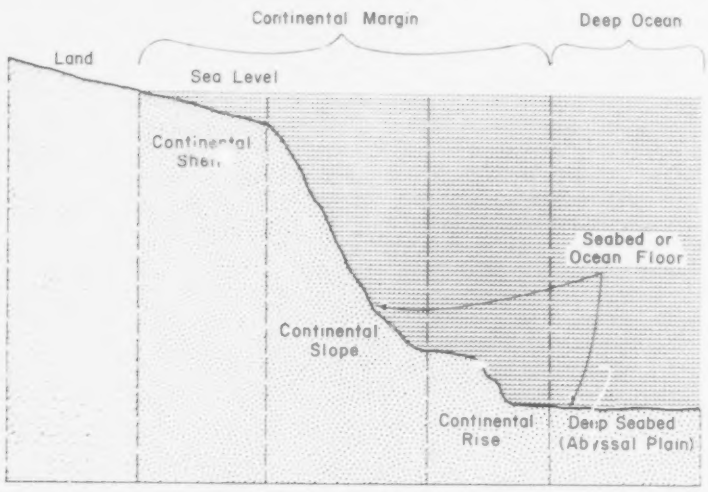
In effect, under the proposed treaty the coastal state is given control of *living* resources within a 200 nautical mile band off its coast, and *non-living* resources (principally oil and gas) within a 350-mile band. Any coastal state which develops its non-living resources in this 200- to 350-nautical-mile zone is required by the treaty to pay royalties ranging from 1 to 7 per-

TABLE 1

Most Significant Provisions of the Law of the Sea Draft Treaty

Issue	Provision(s)
Territorial Sea and Straits	• Establishes a *territorial sea of 12 nautical miles* with innocent passage of vessels through straits permitted.
Ocean Resource Development	• Establishes an *exclusive economic zone* for coastal states of 200 nautical miles for control of living resources and up to 350 miles for non-living resources. In addition, coastal states which develop the non-living resources in the 200 to 350 nautical mile band beyond their shorelines will be required to pay royalties between 1 and 7 percent of the value of all production there.
	• Regulates the mineral resources of the deep seabed through an *International Seabed Authority*, to which all mining firms are subject for the payment of fees and royalties, as well as the transfer of technology.
	• Empowers the *enterprise*, a subsidiary of the International Seabed Authority, to conduct commercial exploration, development, and production activities on the deep seabed.
Pollution	• Specifies numerous provisions aiming to "prevent and reduce pollution of the marine environment."
Marine Research and Technology	• Awards coastal countries the *right to regulate marine research* on their continental shelves. Approval is expected to be granted by the coastal state if certain conditions are met.
	• Requires developed countries to try to *transfer marine technology* to developing countries.

FIGURE 1
Cross-Sectional View of the Sub-Areas of the Seabed in Typical Coastal Area



cent of the value of all production there. These payments are to be made to an International Seabed Authority (ISA), set up by the treaty, which will distribute them to the developing countries. Developing countries, which are importers of the mineral resource under production, are exempt from making such royalty payments.

Administrative Structure of the International Seabed Authority. The draft treaty specifically states that the solid, liquid, or gaseous mineral resources of the deep seabed are the common heritage of mankind, and that exploration and mining activities shall be subject to explicit regulations by the International Seabed Authority established by UNCLOS III. The creation of the ISA was one of the most controversial issues in the Law of the Sea negotiations because it represents the establishment of a U.N.-type administrative structure for the governing of the deep sea. Furthermore, under the proposed treaty, a subsidiary of the ISA will actually have the power to explore, mine, and market seabed minerals.

The ISA, which is to be headquartered in Jamaica, will consist of an assembly, a council, a secretariat, and an enterprise. According to the UNCLOS III draft treaty, the supreme organ of the ISA will be the assembly, which will consist of all the countries party to the treaty with each country having one vote.

Although the highest official body in the ISA will be the assembly, draft treaty provisions actually grant more operating power to the council. The selection criteria for the thirty-six-member council to be elected by the assembly, reflects the lack of influence of the United States, as is evident below:

- four members are to be from among the eight nations which have the largest investments in seabed mining, and at least one of the four members must be from the Eastern (socialist) European regime;

- four members are to be from among the nations which are either major consumers or importers, or both, of seabed minerals, and at least one of the four members must be from the Eastern (socialist) European regime;

- four members are to be from among the nations which are major exporters of seabed minerals, and at least two of these four members must be from developing countries;

- six members are to be from developing countries; and

- eighteen members are to be selected to ensure an "equitable" geographical distribution. [The geographical regions which shall be represented are Africa, Asia, Eastern (socialist) Europe, Latin America, Western Europe, and others. No mention is made of North America.]

This council, which will be dominated by the Eastern bloc and developing countries, is to be the executive body of the ISA. Its responsibilities are to include: (1) the supervision and coordination of all the activities of the ISA, (2) the preparation of a proposed list of candidates for the election of the secretary general, (3) the recommendation of candidates to serve on the governing board of the enterprise, (4) the approval of the work plans and decisions of the enterprise, and (5) its recommendation to the assembly for the distribution of revenues which accrue to the ISA.

The draft treaty provides that the enterprise will be a subsidiary of the ISA, and will (1) conduct exploration, development, and production activities on the deep seabed, and (2) engage in the transportation, processing, and marketing of minerals removed from the deep seabed. In essence, the enterprise will become the first "supernationalized firm" (i.e., a commercial enterprise owned and managed by an international government).

Supporting funds for the ISA are to come from three sources: (1) the assessments made on its members (which will be in the same ratio as the U.N. assessments—the United States contributes 25 percent of the U.N. budget), (2) the funds transferred from the enterprise, and (3) the fees and royalties received by the ISA. The assets, property, income, operations, and transactions of the ISA are to be exempt from all direct taxation. Customs duties on the sales and marketing of deep seabed minerals by the enterprise are also prohibited under the UNCLOS III treaty.

Requirements for mining firms and countries. In addition to establishing a commercial enterprise, the UNCLOS III treaty contains a detailed list of regulations and financial payments which mining firms or countries would have to follow. Firms or countries seeking to explore or to mine the resources of the deep seabed will have to pay an initial administrative fee of $500,000 and an *annual* fee of $1 million to the ISA. After commercial production begins, the contractor will have a choice of either making his continuing contribution to the ISA by paying royalties (based on the market value of the nodules mined), or selecting a combination of royalty payments and profit-

sharing. If the contractor selects to pay only royalties, the rate will be 5 percent for the first ten years of production, and 12 percent beyond the first ten years. If the contractor elects the combination option, he will have to pay between 2 and 4 percent royalties, plus between 35 and 70 percent of his profits, to the ISA.

Before a firm can prospect on any particular region of the deep seabed, the treaty specifies that it must submit work plans describing (1) the area in detail, (2) the estimated quantity and quality of minerals located there, (3) the equipment and methods to be used, (4) the technology to be used, and (5) where such technology is available. Each application for a reserved site on the seabed has to be large enough for two mining operations of approximately equal value. The enterprise can select one of the two parts in which it will conduct its own mining operations and it will let the firm use the other part.

Most importantly, the mining firm must make all the technology it uses available to the enterprise at fair and reasonable prices. In addition the mining firm is required to make arrangements with its suppliers to sell their technology to the enterprise. If a developing country, or a group of developing countries, wants to mine nodules, the firm must also make such technology available to these developing countries. Even if no Western firms are involved in deep seabed mining, the United States and other developed countries may have to "take effective measures" to ensure that such technology is made available to the enterprise according to the draft treaty provisions.

Finally, the treaty specifies a complicated formula for the determination of a production ceiling, which can restrict the future production of nodules on the ocean floor.

Pollution

There are numerous articles in the draft treaty which pertain to marine pollution. The draft treaty declares that countries shall adopt laws and regulations "to prevent and reduce pollution of the marine environment," and to harmonize their policies. It empowers the International Seabed Authority to establish rules, regulations, and procedures in order to control pollution of the marine environment from activities in the deep seabed.

According to the UNCLOS III treaty, coastal states may enact pollution preventing laws in their territorial seas and economic zones, subject to certain qualifications. All countries ratifying the treaty will be responsible for ensuring compliance to pollution standards by vessels flying their flags. Furthermore, these countries will be committed to providing security training, and equipment to developing countries, as well as enhancing the capacity of developing countries in manufacturing technical equipment.

Developing countries will be granted preference by international organizations in the allocation of appropriated funds and technical assistance. Most of the forty-five articles on pollution direct the participating countries to pursue the establishment of international or regional organizations to control pollution.

Marine Research and Technology

In the area of marine scientific research, the UNCLOS III treaty provides that countries, both individually and in cooperation with other states and international organizations, shall actively promote the flow of scientific data, and the transfer of knowledge resulting from such research, especially to developing countries. The countries that ratify the treaty also are to be committed to the strengthening of the marine scientific research capabilities of developing countries.

Under the treaty, coastal countries will have the right to regulate marine research in their exclusive economic zones and on their continental shelves. Also, countries which intend to conduct research in these areas must notify the coastal state of the nature and objectives of the research project, the precise geographical area to be studied, and any other relevant information. Finally, if the coastal state desires, its scientists must be allowed to participate in the research project on board the research vessel; it must be given access to the data and samples gathered during the research project; and it must be provided with the results of the research, as well as assistance in assessing and interpreting these results.

One of the objectives of the developing countries in the UNCLOS III negotiations was to encourage the transfer of marine technology from the industrial world to their own. The treaty requires that developed countries should endeavor to transfer marine technology to developing countries; hold conferences, seminars, and symposia on scientific and technological subjects; promote the exchange of scientists; and promote joint ventures with developing countries.

Moreover, the ISA is to give preference to the nationals of developing countries in hiring its managerial and research staff. It is also required to make available to all countries, and in particular the developing countries, the technical documentation for the acquisition of its equipment, machinery and processes. Finally, countries party to the treaty are pledged to promote the establishment of national and regional marine scientific research centers, particularly in the developing coastal countries.

Summary and Implications for the United States

The proposed Law of the Sea treaty is designed to establish an international cartel, controlled by the developing countries, which (1) will enact production quotas on ocean resource development, (2) levy charges and royalties on industrial producers, (3) require the transfer of technology from the developed to the developing world, (4) restrict the world supply of certain minerals, and (5) establish an international organization for commercially producing and distributing mineral resources. Had the Reagan administration agreed to go along with the treaty provisions, the United States would also have been required to share its revenues from the development of portions of its continental margin, and would have had to pay approximately 25 percent of the administrative expenses of the International Seabed Authority.

These costs related to deep seabed mining might have been justified if the other provisions in the treaty had provided significant benefits to the United States. Customary international law al-

ready provides the United States with navigation and fishing rights, as well as control over its continental margin, without the prospect of having to pay royalties on any part. United States scientists usually have unrestricted research rights outside of territorial or disputed waters, and a "consent regime" for continental shelf research already exists. The draft LOS treaty is more restrictive because it requires scientists to obtain advance permission and to perform other obligations before undertaking scientific research within the 200-mile Exclusive Economic Zone. The United States has domestic legislation and reciprocal agreements with many countries which protect its fishing interests better than the LOS provisions would. Other provisions of the treaty would have had negative political ramifications for the United States. For example, national liberation movements (e.g., the PLO) will be party to the treaty and, therefore, receive funds redistributed through the International Seabed Authority. Hence, the United States stood to lose a lot, but to gain little.

Even though the United States now risks the consequences of being the only major country not to sign the Law of the Sea treaty, some progress has already been made on one attractive alternative. This option, the Reciprocating States Agreement, in which particular countries are to harmonize their domestic deep seabed mining legislation to accommodate the interests of other countries, even promises the possibility of the participation of some Eastern bloc nations as well.

A POSTMORTEM WORD OF CAUTION

There is one very valuable lesson to be learned from the process of negotiating the LOS treaty. This lesson refutes one of the commonly accepted principles of the foreign policy establishment and of the intellectual and academic communities. This principle is that "talk is cheap" and negotiating is always preferable to not negotiating. One corollary to this principle is that if a particular set of negotations turns against us, we can always back away at the last moment. Obviously, this principle—especially in bilateral and limited multilateral negotiations—is necessary for the civilized resolution of the problems generated by the increasing interdependencies among the world's countries. This principle, however, as so many other worthwhile ones, cannot be generalized to all situations. Foreign policy officials must realize that the very *process* of negotiations can have adverse effects on the interests of the United States.

Talk is *not* always cheap; it can be very expensive. The process of negotiating in a worldwide forum in which the United States has little voting power or influence is likely to raise expectations among developing countries, to educate the countries about the details of their own interests, to convert empty or emotional political platitudes into undesirable concrete treaty provisions, to establish new customary or conventional international law which is against our interests, to provide a forum in which rhetoric can obscure reality, and to construct a stage, plank by plank, on which all or most countries of the world—except the United States—might eventually perform.

The Law of the Sea negotiations offer one excellent example of the "talk is expensive" hypothesis. The position of the United States is infinitely worse today than it was when negotiations began in 1973. Most developing countries now have more knowledge about the issues and the potential rewards involved than they did a decade ago—often as a result of consultations with our own negotiators and experts. The term "common heritage of mankind" has evolved to represent the establishment of an international bureaucracy of 25,000 persons, the cartelization of the world's oceans, and the forced transfer of technology. Customary international law has been established, at least for certain subjects of the treaty, even if the treaty does not enter into force. The mechanism for international control of the deep seabed has been established, which will conflict with the economic interests of the United States and much of the world.

If the United States had not actively promoted the negotiations, or even if it had withdrawn in the mid-1970s and formed independent treaties with neighboring countries and major maritime and mining powers, the Law of the Sea conference would have simply sunk. At this time, however, the United States faces the prospect of being the only major country which does not sign or ratify the treaty, and in which an international authority will be in direct conflict with its own interests.

As current or future issues are negotiated (e.g., those pertaining to the internationalization of the Antarctic or Outer Space, the international regulation of pharmaceutical drugs or multinational corporations, or the allocation of shipping tonnage between importing and exporting countries to the exclusion of third parties), the United States should not reject such initiatives because of adherence to a fixed idealogy. But neither should it forget the "real politik" lesson learned in the Law of the Sea negotiations: *ratification of the common heritage of international politicians is not necessarily synonymous with the realization of the common heritage of mankind.*

[1]U.S., Congress, Senate Subcommittee on Minerals, Materials and Fuels, Committee on Interior and Insular Affairs, "Mineral Resources of the Deep Seabed," *Woods Hole Notes* (Washington, D.C., February 1974), p. 1324.

[2]The following summary is based primarily on: Third United Nations Conference on the Law of the Sea, Resumed Tenth Session, *Draft Convention on the Law of the Sea*, (Geneva, 3-28 August 1981).

[3]Technology is defined to include specialized equipment and technical know-how, manuals, designs, operating instructions, training and technical advice and assistance.

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Cornelia M. Crabb

LOUISIANA BULLETIN

Local Airline Booming

Shreveport-based Royale Airlines, which recently celebrated its twelfth anniversary, is now the fifth largest commuter airline in the country.

Showing profits when most of the major airlines recorded losses, breaking book records, and expanding its fleet in 1981 have helped Royale secure this position, notes Chairman of the Board D. Y. Smith in an article published in the July issue of *Shreveport* magazine. The boom in Royale's business, Smith explains, can be traced to the deregulation of the airline industry in 1978. Faced with stiffer competition and rising costs, the majors started bailing out of small markets and short routes. Royale wasted no time picking up the slack in markets such as Monroe and Gulfport.

Strict standards have also contributed to Royale's reputation of efficiency and safety. Smith remarked, "Last year we completed 98.6 percent of all the flights we scheduled . . . 88 percent of them on time." Pilots at Royale *average* 9,000 hours of flying experience, a fact which undoubtedly explains Royale's accident-free record.

So confident is Smith of the Royale's continued success, that he has introduced flights to Florida.

Coast Guard Wants to Close Louisiana Facilities

The Coast Guard has announced plans for a sweeping nationwide reduction in the number of its field offices, including a number of Louisiana's coastal facilities. The vessel documentation and other navigation services provided by the field offices will be transferred to the Coast Guard's twelve district offices, such as the one at New Orleans.

An article in the July issue of *Acadiana Profile* explains that the plan would scrap the Houma and Morgan City documentation centers, the vessel traffic safety (VTS) systems at New Orleans and Berwick, and the navigation aid office at Dulac.

United States Representative Billy Tauzin, of the coastal region, has acquired funding for the New Orleans and Berwick stations through this year, and is fighting to keep the other stations open.

The VTS systems are especially important to this state, Tauzin notes, because "nobody else in the United States has the volume of small vessel traffic that we do in Louisiana."

Tauzin argues, "Closing the Houma and Morgan City offices will result in a slowdown of marine activity in the Gulf area that could cost the federal treasury as much as $8 million a year in lost tax revenues. That's more than it costs to operate both the Houma and Morgan City offices."

He says burdening the district office with the task of documentation would double its workload. The resultant delay in processing could cost Louisiana shipbuilders millions of dollars a year in extra interest paid on interim construction mortgages until the documentation process is completed.

Lafayette Site of First Telephone Laser Transmissions

South Central Bell has chosen Lafayette as the site for its first use of laser beams in telephone transmissions, according to the July issue of *Acadiana Profile*.

The new system will send thousands of calls across town through beams enclosed in clear glass fibers. These fibers can carry more than 20,000 conversations at a time, compared to the 900-conversation capacity of the four-inch copper cables now in use.

Joe Velkers, manager of Southern Bell's Lafayette district, said the city was chosen because of its rapid growth. The system is expected to be operational in May 1983.

Information System Opens in State

Businessmen and other professionals with information needs have a valuable new resource—Information, Incorporated.

The Lafayette-based firm is described as "an information clearing house" by Toni Catherine Langlinais, Information's vice-president and director of research. Catering to businesses around the clock, the new company handles from twenty to thirty questions a day, on topics ranging from oil recovery techniques to the consumption trends of hot peppers in the Middle East.

At the heart of the operation is a collection of over 300 computerized data bases which are accessed through the international telecommunications network. This system provides Information with over 100 million records of articles, reports, and journals in more than forty languages.

For more details, call (318) 234-7243 or (504) 568-1411.

Gramercy Named New Port of Entry

The U.S. Customs Office recently designated Gramercy an official port of entry, according to the June 26 issue of the *Port of New Orleans* magazine.

The workload at the station has increased so much in recent years that it far exceeded the requirements set by the Customs Office for establishing new ports of entry.

The Gramercy Port of Entry will work closely with the South Louisiana Port Commission in providing services to the importing community. Because of its new status, Gramercy will be able to offer free customs inspection service to all users of the port.

Manufacturers Directory Now Available

The State Department of Commerce has recently released its *1982 Directory of Louisiana Manufacturers*.

The publication contains data on approximately 3,000 manufacturing firms in the state. Barbara Weber, editor of the directory, explains it is useful for "related marketing efforts in industrial job placement, market projections, and economic analysis."

Copies of the directory may be obtained for $35 each by writing: Directory, Louisiana Department of Commerce, P.O. Box 44185, Baton Rouge, LA 70804.

□

Joe Wagner

COLLEGE HIGHLIGHTS

New Summer Programs for Banking and Health Care Managers Available

The College of Business Administration at LSU has added two new continuing education programs for mid-level managers to its already diverse adult professional development curriculum on the Baton Rouge campus. In June, the college and the Louisiana Bankers Association (LBA) began to jointly sponsor an intermediate-level banking program for junior-level bank personnel throughout the state. The course of study for the new LBA School of Banking spans a two-year period, with a one-week resident session on the LSU campus each year.

Borrowing from its well-established reputation in banking education, the College of Business Administration at LSU, in cooperation with the Louisiana Hospital Association (LHA), has also introduced the LHA School for Supervisory Training this summer. Modeled after the Louisiana Banking School for Supervisory Training, the new LHA school is designed to improve the managerial skills of health care institution supervisors.

For more information about either program, contact: Dan G. Bailey, Director of Continuing Education, College of Business Administration, Louisiana State University, Baton Rouge, LA 70803, (504) 388-6872.

Multinational Management Program Tours Japan

A three-week tour of Japan's industrial facilities provided the basis for LSU's Fourth Annual Multinational Program this summer.

Edmund R. Gray, chairman of the Department of Management at LSU, and Banwari L. Kedia, an associate professor of management who founded the program, conducted this year's study tour which focused on Japanese management and business practices. The students participating in the course heard lectures from and met with representatives of a broad array of business and industrial establishments, including Matsushita Electric, Sharp, Toyota, Nippon Steel, and Fujitau Fanuir. Dr. Kedia reports that the students, who stayed with Japanese families, were amazed at the dedication of Japanese workers to their jobs and felt that Japanese managers seemed better able than their American counterparts to make decisions based on their long-run implications.

Economics Faculty Attend Harvard Workshop

Professor Robert F. Smith, Assistant Professor Adrienne McElwain, and two teaching assistants, Patricia Ann Knight and David L. Hoppenstedt, of the Department of Economics at LSU, were among fifty participants from twenty universities who attended a teacher training workshop at Harvard University in Cambridge, Massachusetts this summer. The workshop, sponsored by the Joint Council on Economic Education, was designed to foster the establishment and growth of teacher training programs in the economics departments of colleges and universities throughout the country. LSU's workshop participants plan to utilize the information and materials they obtained in an ongoing program for teaching assistants who teach introductory courses in economics on the Baton Rouge campus.

Business and Ethics Course To Be Offered

A new course focusing on the role of business within the context of Western culture as reflected in the arts, literature, and social institutions will be offered to LSU students this fall. "Business and Ethics" (or University Course 1101) represents an interdisciplinary effort that will be taught by economics professor William F. Campbell and philosophy professor Edward Henderson, and is being made possible through funding by the National Endowment for the Humanities.

Grants and Awards

• LSU recently received a $150,000 donation from Ralph and Kacoo Olinde to create the basis for an endowment planned for the proposed Center for Private Enterprise and Entrepreneurship. The College of Business Administration will administer the center, which will conduct research directed toward a better understanding of entrepreneurship and explore methods and policies to strengthen the private sector in Louisiana and the Gulf South.

• Susan J. Linz, an assistant professor of economics at LSU, has been invited to participate in a research project, being funded by a $5 million grant from the National Council for Soviet and East European Research, which is being carried out to interview Soviet emigrants who have come to the United States since 1979. Dr. Linz will be interviewing those members of the group who used to be involved in the Soviet economy in order to determine whether or not the economic models designed by Soviet leaders in the 1950s and 1960s are still relevant in understanding the Soviet Union today.

Recent Faculty Publications

• William F. Campbell, a professor of economics at LSU, is the author of an article entitled "Towards a Conservative Economics" which was recently published in *Modern Age* (Winter 1982).

• David B. Johnson, a professor of economics and director of the Division of Research in the College of Business Administration at LSU, is the author of an article entitled "The Free Rider Principle, the Charity Market and the Economics of Blood" which has been published in a special issue of the *British Journal of Social Psychology* (Leicester: The British Psychological Society, 1982). □

Louisiana's Dynamic Ports

Throughout the 1970s Louisiana's ports continued to play an increasingly important role in the state and the nation. To maintain their dynamic growth and historically successful position, these ports must keep planning ahead to meet the needs of the nation's waterborne commerce. Today, Louisiana's ports are faced with two major challenges that could dramatically alter the nature of foreign commerce in the state, and in the nation, as a whole: (1) the projected tremendous increase in steam coal exports, and (2) the federally-sponsored proposals to enact port charges and waterway user fees.

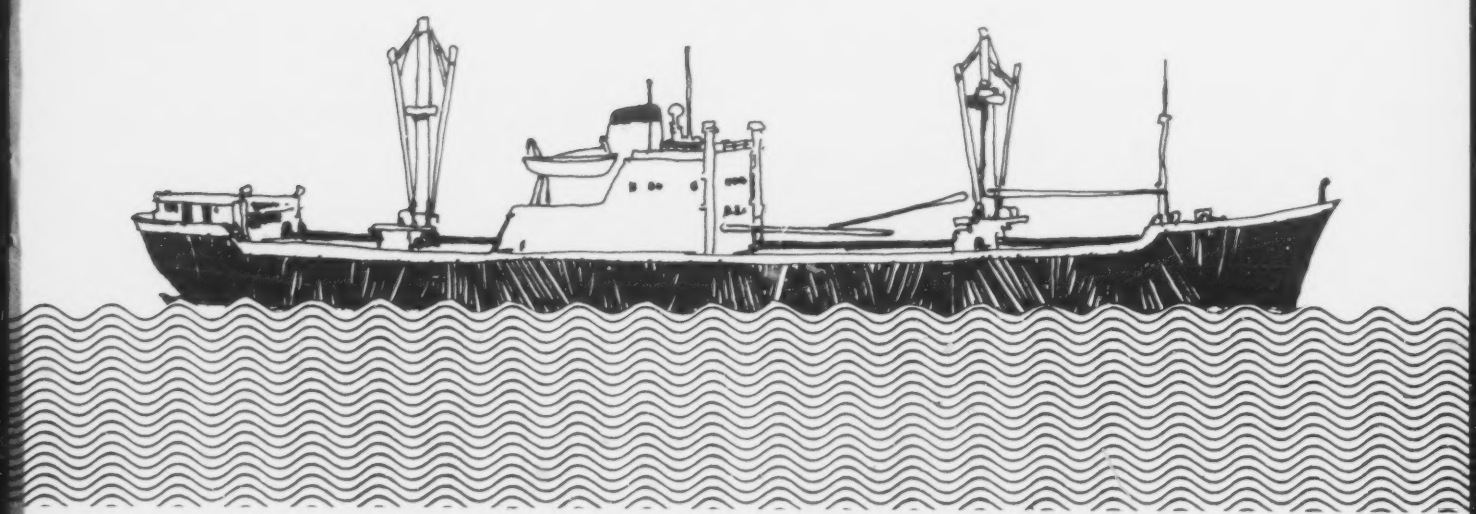
Louisiana's port system is successful, dynamic and has an enormous potential for future growth. The term "system," however, is a misnomer if used in its normal context of structured interrelated functions, or central control. Louisiana's port system is, in fact, a potpourri of private and public entities. For example, the cargo mix and vessel characteristics, as well as the world and domestic markets, that distinguish the state's various deep-water ports vary markedly. Therefore, the market strategies and planning facilities applicable to one, could be an anathema to another.

Fortunately, over the years the political leaders of the state have been able to resist the never-ending temptation to "consolidate," "centrally control" or "plan on an integrated statewide basis," the growth and operations of the state's ports. As a result, Louisiana's ports have remained flexible and competitive, enjoying well-planned development and an unparalleled growth in their market share of the nation's international trade.[1]

CHARACTERIZING LOUISIANA'S PORTS

The genesis of Louisiana's port system is based on the slightly more than 6,900 miles of navigable waterways within the state. Located at the mouth of the Mississippi River system, with its 19,000 miles of navigable waterways, Louisiana's ports are linked to such distant inland ports as Minneapolis, Sioux City, Tulsa, Pittsburgh and Chicago. In addition, its mid-Gulf location places the Port of New Orleans in the center of all maritime activity along the 1,100-mile Intercoastal Canal System which reaches from the Mexican border to Florida. This vital location alone was key in the U.S. attempt to purchase New Orleans in 1803, as well as in the counter-offer of Napoleon's Minister Talleyrand to sell the entire Mississippi Valley to the United States. In making the offer, Talleyrand is reported to have said, "We will never sell the port alone; all the West is valueless . . . without New Orleans."[2]

Much has been written in recent years on various aspects of Louisiana's ports. However, when one considers from either a legal or political standpoint, or both, that the state has five deep-water ports, one "Superport," and thirty-seven "other" ports (or port, harbor, and terminal districts) it is important to define and understand the major aspects characterizing each of these.[3]



Louisiana's Deep-Water Ports

The Superport, or the Louisiana Offshore Oil Port, provides a very deep-water (115 feet) offshore terminal designed to handle imported crude oil delivered in vessels of up to 700,000 deadweight tons. Located off the coast of Lafourche Parish, this highly specialized facility—the only one of its kind in the United States—began operations in 1981.[4]

Four of the state's five deep-water ports, presently capable of handling vessels drawing up to 40 feet of water, are located on the Mississippi River within the jurisdictional areas of the port authorities of Baton Rouge, South Louisiana, New Orleans, and Plaquemines Parish. The Port of Lake Charles also has similar capabilities. Three of these ports (Baton Rouge, New Orleans, and Lake Charles) can handle both bulk and general cargo vessels, while both the Plaquemines Parish and the South Louisiana port areas (between Baton Rouge and New Orleans) are designed essentially for bulk carriers transporting grain, coal, petroleum or chemicals.

Although a detailed study specifically analyzing the impact on Louisiana of foreign commerce through these ports is not available, numerous other studies have been done which highlight the economic benefits derived from the movement of foreign waterborne commerce through the state.[5] In a study conducted by Viana Maritime Systems, Inc., it was estimated that the Port of New Orleans alone, either directly or indirectly, generates 110,000 jobs, $1.2 billion in personal income, $143 million in tax revenues, and $5.6 billion in the sale of goods and services for the state.[6] Considering that New Orleans accounts for one-fourth of the state's foreign commerce, it is apparent how vital these deep-water ports are to Louisiana's economy.

Louisiana's Shallow-Water Ports

The state's thirty-seven other ports, (or port, harbor, and terminal districts) are scattered throughout Louisiana's shallow draft (i.e., 14 feet deep) waterway systems. Among these facilities are primarily those that represent industrial development efforts, some of which are highly successful centers of marine-oriented manufacturing and construction. Others function as forest and agricultural product "feeder" ports to the Mississippi River's export terminal facilities. Several of these ports are highly successful as shore terminals and resupply bases for the off-shore oil industry, and a limited number are principally commercial fishing ports. It should be noted that some of these thirty-seven other ports probably exist primarily to satisfy local pride or political ambitions, or possibly to serve as legal or political bases for "aspirations of future growth." The one common denominator of these thirty-seven ports is that they all function within the U.S. coastwide trade market, while the vessels using the Superport and five deep-water ports almost entirely represent cargoes moving in international commerce.

A DECADE OF UNPRECEDENTED GROWTH

Louisiana's ports have played an ever-increasing role in the international commerce of the nation. As the U.S. Department of Commerce statistics in Table 1 reveal, in 1971 the state's ports handled 52 million tons of foreign trade worth $5 billion. By 1980, 188 million tons of foreign waterborne commerce valued at $43 billion traveled through Louisiana's ports. These latter figures equal, respectively, more than three and one-half times the volume and more than eight times the value of the cargo recorded a decade earlier.[7] This unprecedented growth in Louisiana's foreign waterborne commerce is illustrated in Figure 1.

Two major factors contributed to this steady rise in foreign trade passing through the state. First, the total U.S. foreign trade market climbed from 544 million tons in 1971 to 900 million tons in 1980. This sizable increase in tonnage created a greater potential for port services. Already active in international commerce, Louisiana's ports were able to satisfy a portion of this increased demand and, thereby, benefit from the market's expansion.

The overall expansion in U.S. ex-

TABLE 1

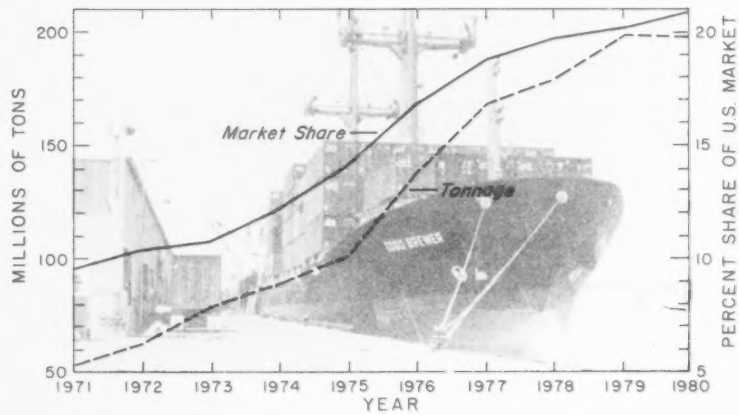
Foreign Waterborne Commerce of Louisiana Ports, 1971-1980

Year	Volume of Trade (In short tons) Imports	Exports	Total	State Total as Percentage of U.S. Total
1971	20,169,000	32,046,000	52,215,000	9.6
1972	20,828,000	42,136,000	62,964,000	10.4
1973	29,953,500	49,410,000	79,363,500	10.7
1974	41,203,500	48,084,500	89,288,000	12.0
1975	51,763,000	50,144,500	101,907,500	14.1
1976	74,078,500	63,077,500	137,156,000	16.7
1977	106,127,500	62,548,500	168,676,000	18.7
1978	107,620,500	70,282,500	177,903,000	19.7
1979	117,378,500	77,317,500	194,696,000	20.2
1980	96,955,000	91,143,000	188,098,000*	20.9

*The decline in Louisiana's total foreign commerce from 1979 to 1980 was due to the drastic drop in crude petroleum imports during that period. Nationwide, crude petroleum imports fell by 11 percent from 1979 to 1980.

Source: U.S., Department of Commerce, Bureau of Census, "U.S. Foreign Trade: U.S. Waterborne Exports and General Imports," Publication FT985 (Washington, D.C., 1971-1980).

FIGURE 1
Growth in Louisiana's Foreign Waterborne Commerce, 1971-1980



Source: Same as for Table 1

Photograph courtesy of Port of New Orleans

ports and imports, however, only partially explains the growth in foreign waterborne tonnage through Louisiana's ports. Between 1971 and 1980 the volume of cargo handled by the state's ports increased by 260 percent, significantly exceeding the 65 percent growth rate for the total U.S. market. As a result, Louisiana's share of the U.S. foreign trade market jumped from 10 percent in 1971 to 21 percent in 1980 (see Figure 1).[8]

The second factor contributing to the steady growth in foreign trade passing through the state's ports, as well as the sizable increase in Louisiana's share of the total U.S. market, was the major increase in available marine terminal facilities (grain elevators, refineries, chemical plants, general cargo wharves, floating transfer equipment), which were built to tap the expanding market potential, to take advantage of the economies of the inland waterway system, and to benefit from the equally low water-induced rail rates during the last ten years.

Grain exports and crude petroleum imports have contributed heavily to the growth of cargo through Louisiana's ports. In 1980 alone, 57 million tons of grain left the state's ports for foreign markets. These shipments represented 63 percent of the state's total exports, and 40 percent of the nation's grain exports. On the import side, crude petroleum accounted for 79 percent of all foreign cargo receipts by Louisiana's ports (77 million tons), and 27 percent of U.S. total crude petroleum imports.

Of the 188 million tons of foreign trade handled by the state's ports in 1980, bulk cargo accounted for 95 percent or 179 million tons of that total. Clearly, the volume of bulk cargo statistically dwarfs the volume of general cargo handled in Louisiana. The significant role Louisiana plays in moving the nation's high-value foreign general cargo (e.g., coffee, machinery, and iron and steel products), however, should not be overlooked. More than 9 million tons of general cargo moved through the state's ports in 1980, representing 8 percent of the U.S. general cargo market. Notably, the Port of New Orleans alone handled almost 80 percent of this general cargo (7 million tons), making it one of the top three general cargo ports in the country.

Louisiana's ports have obviously enjoyed tremendous growth over the last decade. In order to ensure that this growth continues, capital facility investments must be made so that the maritime trade of the future can be accommodated. In addition, it is essential that both the state and the federal government thoroughly analyze the maritime industry and take action to ensure that U.S. ports not only remain competitive with each other, but with other ports in the world market, as well.

THE NEED FOR CONTINUING CAPITAL IMPROVEMENTS

Some Recent Projects

Throughout Louisiana's port system, dollars are being invested in capital facilities. For example, at the Port of New Orleans, a five-year, $123 million capital improvements program has recently been completed. The program included extensive renovation work along the riverfront where aging facilities were replaced by eight new heavy-duty wharves. In the tidewater area, served by the Mississippi River Gulf Outlet, four of the six planned berths at the France Road Container Terminal have been finished and are now in service.

Upon the completion of its five year capital improvements program, the Port of New Orleans immediately began a ten-year, $330 million (1980 dollars) facility investment plan. Currently, construction is well underway on the port's new multi-purpose Jourdan Road Terminal. Located across the canal from the France Road terminal, this facility is scheduled to have two berths operational in 1983, and another four berths completed by 1990. Future plans also call for modernizing more wharves on the river and the construction of a special facility in the tidewater area primarily for handling iron and steel cargo.

The cost of building or renovating facilities in New Orleans, or in any other port, is substantial. At current prices, a single ship berth capable of accommodating one deep-sea vessel and the required back-up area for marshalling and storing cargo can cost between $13 million and $16 million. Such facilities are necessary, however, if Louisiana's ports are to continue to play a vital role in the international commerce of the nation, and thereby remain a valuable contributor to the economy of the state.

During the last five years, the state of Louisiana has invested $190 million in its ports for capital improvement projects. The Port of New Orleans and the Port of Lake Charles have been able to have additional capital improvements carried out with their own self-generated funds. For example, due to the large volume of trade handled by the Port of New Orleans, its port officials estimate that between $4 million and $8 million per year can be generated for capital facilities investments, depending on world conditions. A considerably smaller amount, approximately $3.5 million, can be produced annually

by Lake Charles. Obviously, given the current construction cost levels mentioned above, state funds will be required in addition to the ports' own self-generated monies if current growth is to be sustained.

Budgeting Policies and Assessing Future Needs

While Louisiana requires a five-year budget, during the last two years the state has essentially been budgeting on a year-to-year basis for its ports. In view of the planned shift of certain fiscal responsibilities from the federal government to the states, it is probable that this annual budgeting policy will continue, at least through the near future.

Internal budgeting policy varies markedly from port to port, depending on its major source of income, its perceived "mission," and its own assessment of growth potential. A number of the shallow draft ports have taxing power, while the state's major international ports do not. The Port of New Orleans, for example, covers all of its operating expenses, the servicing of approximately $72 million in outstanding bonds, and between $4 million and $8 million in capital improvements from its own self-generated revenues. Nonetheless, from the standpoint of the public good, earmarking state-appropriated funds for physically expanding Louisiana's port facilities appears to be a worthwhile public investment. A recent, extensive U.S. Department of Commerce study found that the movement of each 600 tons of general cargo provides one job, and (2) that every single ton of cargo moving through a U.S. port in foreign maritime trade produces a direct economic impact on the port community of $44, and a combined direct and indirect impact of about $70.

The usefulness of the capital budget procedure in assessing the future needs of a particular port is illustrated by the benefits gained by the Port of New Orleans from this type of planning. In 1980, the port commissioned a long-range (to the year 2000) detailed study of potential world markets, the type and volume of vessels projected to service them, the potential market share available to New Orleans, and the type and number of facilities needed to service this potential movement. Based on this study, the port projected a ten-year capital facilities program, an accompanying budget, as well as estimates of available self-generated revenues. This projection is updated annually and tested against actual results. Periodically, the port hires a knowledgeable, independent consulting firm to verify and update the "70 Study." Changing world conditions and the advent of new and highly specialized modes of ocean transport (e.g., LASH and SeaBee carriers—oceangoing vessels that carry specialized barges on board—, Ro/Ro or Roll-On/Roll-Off ships, full container vessels, and the like) make this update and modification process necessary.

FUTURE ECONOMIC CHALLENGES

Today Louisiana's ports are faced with two major challenges that could dramatically alter the nature of foreign commerce in the state, and in the nation as a whole, with important implications for the state economy: (1) the projected tremendous increase in steam coal exports, and (2) the federally-sponsored proposals to enact port charges and waterway user fees.

Impact of Coal Exports

The "good news," or at least potentially good news, is the sudden growth in the world steam coal market, due to the conversion of electric to coal generating plants throughout the developed nations. Industrial representatives of this potentially enormous market have expressed a great interest in the U.S. market because of the nation's vast coal reserves, relatively stable labor force, and responsive transportation industry. The United States appears to have at least marginal advantages over present major world steam coal producers, such as Poland, South Africa, Australia, Canada, and possibly, China.

However, at least some of the coal-importing nations, most notably France, indicate that if the United States is to participate on a major basis in this market, the economies afforded by large bulk vessels (i.e., those of 150,000 gross registered tons) must be

recognized and accommodated by appropriate port facilities in this country. To be able to serve large bulk vessels, Louisiana's port channels must be deepened to 55 feet. At present, 44 feet is the draft limitation in the Mississippi River. Similar depths predominate at all other Gulf and East Coast ports. Consequently, the race to deepen is on. But, the stakes are large and the costs, substantial. Deepening the lower Mississippi River alone is projected to cost over $500 million.

Notably, the U.S. Army Corps of Engineers estimates that the benefit to cost ratio for deepening the lower Mississippi River is 8.4 to 1. This high ratio, is based on the growth potential for grain exports (which also use large bulk vessels), as well as that for coal shipments. In addition to grain and coal, petroleum traffic would also benefit from deepening the lower Mississippi River channel to 55 feet. Governor Treen has recently commissioned a task force, headed by State Secretary of Commerce Ben James, to consider what economic, physical, and market analyses are necessary if the state is to commit its resources, in part or in whole, to bring this vital channel deepening project to early fruition.

Even without the deepened river channel, Louisiana has benefited from the early effects of the world coal market expansion. In one year, from 1980 to 1981, the lower Mississippi River port system experienced a growth in coal exports of 263 percent, from 3.8

million to 13.9 million tons. On a national market share basis, Louisiana's metallurgical coal exports increased from 3.2 percent to 6 percent during the period. By adding in the "big mover," steam coal, the state increased its market share from 12.4 percent to 31.5 percent, or to first place in the nation for steam coal exports in 1981. The potential for Louisiana from the rapidly expanding coal market is enormous. Although the costs involved in being able to tap that market are high, the state must move quickly if it is to truly reap the benefits potentially available to it.

Impact of Port Charges and Waterway User Fees

In spite of the good news about the coal market, the federal administration has proposed an array of "cost-sharing, cost-recovery user charges" to be imposed on the nation's port systems that could be disastrous not only to the growing coal industry, but also to the entire maritime structure of the nation.

Basically, there are seven types of fees being considered. Two of the seven would directly affect the country's inland waterway systems. The first would be in the form of the existing tax on tugboat diesel fuel. Currently at six cents a gallon, this fee will soon be escalated to twelve cents and may possibly go higher. The second suggested charge is a "segmented cost recovery charge" on locks and river structures. As proposed by the federal administration, this charge would be for specific waterway improvements and be imposed on all traffic traversing that portion of the waterway system.

In addition to these charges, five others have been proposed which would primarily affect ocean ports. The first is a fee to recover the current cost of maintaining and operating the existing channels. Based on the premise that the waterways benefit the nation, not just the ports or states bordering them, and that "they shall ever be free," U.S. channels historically have been maintained by the federal government. Similar to this proposal is another one which seeks to recover federal government costs that would be incurred in deepening the waterways, as well as in the ongoing dredging needed for these deepened channels.

The final three proposed charges would assess a fee to recover the operating costs for the Federal Maritime Commission, the U.S. Coast Guard, and the U.S. Customs Service. The proposal to fund U.S. Customs is particularly interesting, since the U.S. Customs Service already collects over $8 billion a year in duties from foreign trade.

In addition to this cumulative litany of transportation taxes, the U.S. Treasury is considering removing the tax-exempt status of a whole range of financing plans presently available for the construction of public port facilities.

While philosophically user charges may be appealing, no analysis has been made of the *cumulative* effect of these proposed charges on the position of U.S. exports in the world marketplace. The nation's two largest exports, as well as its principal sources of international revenues, are grain and coal, both commodities selling on very narrow margins in a highly competitive world market. Yet to date, no consideration is being given on a national level to the potentially negative consequences of U.S. port charges and waterway user fees on the markets that these products represent.

WHAT'S AHEAD

Louisiana's dynamic ports can and will continue to thrive as long as they are provided with the essential resources for their functioning in the highly competitive, ever-changing arena of international trade. Of paramount importance, not only to Louisiana's ports, but also to the entire economy of the state and that of the nation, as a whole, is the absolute necessity that realistic, knowledgeable analyses of the cumulative effects of the various proposed waterway and port charges on the U.S. position in competitive world markets be made before the charges are placed into effect. Likewise, Governor Treen's task force on the deepening of the Mississippi River must move forward without delay. The full support of the governor's office is essential to expedite the commencement and completion of the financial, physical, and market studies needed, if the state is to consider the tremendous potential in its 55-foot channel deepening project.

Most important of all, the present port "system" must be allowed to continue to function in a manner that, to date, has been most successful!

[1]It should be noted, however, that the state's deep-water ports are parties to an agreement which affords them immunity from anti-trust actions by the U.S. Department of Justice regarding discussions of rates and practices as they affect these public port entities. Such immunity allows legal coordination and cooperation when mutually beneficial.

[2]Charles L. Dufour, *Ten Flags in the Wind* (New York: Harper and Row, Publishers, 1967), p. 127.

[3]Jim Bradshaw, "Ports: Pivot of Louisiana's Prosperity," *Acadiana Profile* (July/August 1980): 36-60; Jim Bradshaw, "Deep-Water Ports Mean Billions to Louisiana," *Acadiana Profile* (September/October 1980): 41-52; Patrick Sweeney, "Port of New Orleans," Special Supplement—Louisiana Industry Review, *New Orleans Magazine* (April 1980): 28-39.

[4]LOOP, INC., Operations Manual, Part 7, (1981), p. 19.

[5]See, for example: Booz, Allen and Hamilton, Inc., *The Economic Impact of the Port of Baltimore* (March 1982); John A. Reinecke and Caroline Fisher, "The Economic Impact of the Port of New Orleans," *Louisiana Business Survey* (January 1981): 4-7; U.S., Department of Commerce, Maritime Administration, *Economic Impact of the U.S. Port Industry*, Volume I (Washington, D.C., August 1978); Viana Maritime, Inc., *Economic Impact: An Estimation of Production, Employment and Earnings and State Taxes Generated in Louisiana by the Port of New Orleans* (June 1980).

[6]Viana Maritime, Inc., p. 7.

[7]U.S., Department of Commerce, Bureau of Census, "U.S. Foreign Trade: U.S. Waterborne Exports and General Imports," Publication FT985 (Washington, D.C., 1971-1980).

[8]*Ibid.*

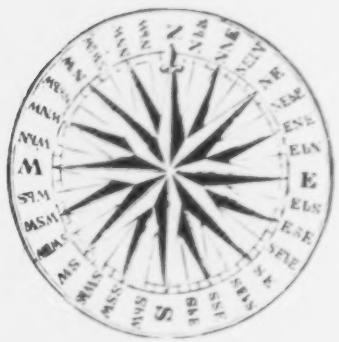
[9]U.S., Department of Commerce, Maritime Administration, p. ii.

EDWARD S. REED is the executive port director and general manager of the Port of New Orleans. He also serves as chairman of the American Association of Port Authorities, and on numerous committees related to both transportation and port concerns, including the Governor's Task Force on the Future of the Mississippi River. □

Storm Clouds Over Merchant Shipping

Charles Lozes speaking from his New Orleans office.

Photograph by Joe Wagner



The merchant shipping industry has undergone a number of major changes over the last two decades. Today, the realities of worldwide economic recession and rising costs are tying up the fleets of Western shipowners and leaving the maritime industry depressed. In this special interview with the Louisiana Business Review, Charles F. Lozes, a prominent New Orleans maritime attorney, shares his views as to why these trends in merchant shipping have occurred and what problems the industry will face in the years ahead.

On bluewater and brownwater, ocean and river, seafarers and rivermen of the Western Hemisphere are facing a common problem, as the realities of worldwide economic recession and rising costs tie up their fleets, leaving them beached. Not only sailors, but all participants in the maritime trades are feeling the pinch. The economic constraints of the 1980s are even forcing the Western shipping industry to shift its construction and crewing focus to the less expensive Far East.

In this article, the *Louisiana Business Review* interviews prominent New Orleans maritime attorney Charles F. Lozes of the firm of Terriberry, Carroll, Yancey, and Farrell. Mr. Lozes discusses the functions of, and trends in, international shipping and shipbuilding, touching on some of the more vital problems being encountered by the industry today. As he points out, however, "the parameters of this dynamic trade change frequently, and what is true today may not be tomorrow."

LBR: *How do you perceive the role of international shipping in the local, national, and world economies?*

LOZES: "One need not pause too long before being able to appreciate the significance of international shipping as our only method of moving substantial quantities of cargo between the world's nations at a reasonable cost. Foreign trade and markets are absolutely critical to the viability of the American economy. More than 100,000 barges pass through the Port of New Orleans each year. Waterborne foreign commerce exceeded 40 million tons in 1980, and more than 50 percent of that represented exported grain and imported petroleum products.

"It is expected that the exportation of coal through the Port of New Orleans will dramatically increase over the next several years. There are continuing efforts through various trade organizations and the Board of Commissioners of the Port of New Orleans to seek out and develop new markets throughout the world. The port, itself, should thrive in the coming years. The U.S. merchant fleet, however, may not."

LBR: *That's true. For example, exports accounted for only 5 percent of the U.S. gross national product (GNP) in 1960. By 1980, 15 percent of our GNP was attributable to exports, yet the U.S. merchant shipping industry has been declining during the past decade. How would you explain this apparent paradox, in light of the unprecedented expansion of international trade over the past 20 years?*

LOZES: "During the past decade the international shipping community has been besieged by uncertainty in a complex political and economic world environment. The global maritime industries are in the midst of a slump, the extent of which has been seldom experienced. Significant percentages of U.S.-flag fleets are laid up without proper cargoes; and, in March, more than 300 Greek-owned vessels were out of the market, with more lay ups expected. Many international owners are struggling to meet basic daily operating expenses. Even though there are a few owners who are weathering the storm successfully, many ambitious construction programs have been either delayed or cancelled.

"Simplictistically, the problems affecting the shipping industry are the same as those which have troubled other international and domestic industries—fuel costs, interest rates, and escalating labor and operating expenses, coupled with global recession, diminishing productivity, inflation, international politics, and currency fluctuations.

"Cost factors are certainly a primary contributor to the decline of U.S. merchant shipping. Foreign-flag vessels can carry the products cheaper, and the foreign fleets are expanding, while the U.S. ocean fleet is stagnating. So, with the increase in the volume of exports, those vessels economically capable of competing for cargo, will carry it."

LBR: *If the demand for U.S. ocean vessels is sliding, where is the impetus of international shipbuilding today?*

LOZES: "The majority of international shipbuilding is taking place in the Far East, where Japan and South Korea have very significant operations. Japan's 1981 construction investment for new bluewater ships is expected to show an increase of about 31.5 percent, or approximately $1.85 million. South Korea has implemented a massive five-year expansion of shipbuilding and repairing capacity, planning to invest some $1 billion in raising its shipyard from 1.8 million dead weight tons (dwt—a vessel's load-carrying capacity) to 6 million dwt per year. Its most recent achievement was the winning of a $400 million contract, perhaps the largest shipbuilding order ever placed, from United Arab Shipping Co. for nine containerships that are 1,800 twenty-foot equivalent units each in size. [Containership capacities usually are given in twenty-foot equivalent

units referring to a container 20 feet long, by 8 feet high, by 8 feet wide, for a total 1,280 cubic feet of space.]

"Shipbuilding has undergone a tremendous revolution in recent years. Today's yards use the assembly line system to connect component parts built in different areas of the facility. These components, which are completed sections of the ship, and are designed and cut by computers. The older, highly skilled methods are being replaced by high technology. This may help explain the recent development of shipbuilding industries in countries not previously thought of as being important in that field."

LBR: *Obviously then, shipbuilding design has undergone its own revolution. Could you explain what kinds of vessels are being designed today?*

LOZES: "The design of vessels is as varied as the cargoes carried and port facilities available. For the movement of dry bulk commodities (grain, ores, fertilizers, etc.) the general description bulk carrier is appropriate. These vessels vary in size from less than 25,000 dwt to more than 125,000 dwt. Some are fitted to carry other products, such as automobiles (car-bulkers), timber (log-bulkers), and petroleum products (OBO—oil bulk ore). Liquid bulk products are carried in tankers, parcel product carriers, OBOs, very large crude carriers (VLCCs), and ultra large crude carriers (ULCCs). ULCCs in excess of 400,000 dwt are common. Non-bulk cargoes are generally carried on the customary freighters.

"Recently the containerization boom has resulted in the development of the containership, lash, and seabee designs. Cargoes are pre-stowed in containers and barges which are then transported on, or into, these special-design vessels. The loading or discharging of a large consignment, which once took two days, can be completed in twelve hours. Another functional design is the Roll-on/Roll-off (Ro Ro). Containers on truck beds are driven onto the vessel via a stern ramp, which is then elevated for ocean transit. A Ro Ro vessel can receive a full cargo at New Orleans, deliver it to several Central American ports, receive the return cargo, and arrive back in New Orleans in seven days.

"There are refrigerated vessels (commonly seen in the Mississippi Gulf Coast banana trade), deep draft coal carriers, cattle carriers, special heavy lift vessels, and the list goes on."

LBR: *Has there been any trend toward cost of operation reduction through development of more efficient vessels?*

LOZES: "Yes, some. I've seen vessels come into the Port of New Orleans that even have been *rigged for sail!* Basically, a merchant vessel is not aerodynamically designed. I know of companies that have spent several hundred thousands of dollars in coating hulls with special paints to facilitate movement through the water by eliminating the building-up of marine growth. The reasoning is that a sleek hull will save significant, or least a reasonable percent of, fuel expense. But the same vessel will come into the port with a 50 or 60-foot superstructure sticking up in the middle or at the end of the ship. Therefore, if the ship's coming over from Europe, and encounters 10-to-20 knot winds, she will waste a lot of fuel. Delta Steamship Lines' newest ships, for example, are designed to take into account wind factors, with the house and the accommodations located forward, built into the bow of the vessel. These vessels are designed to go through not only the water, but also the air surface."

LBR: *Given these changes, how would you view the condition of the U.S. shipbuilding industry, then?*

LOZES: "Although U.S. shipyards are building merchant vessels, they are probably being kept afloat by their significant Navy contracts, including $10.3 billion for fiscal year 1982. New Orleans' Avondale Shipyards, Inc. [one of the largest shipbuilding companies in the country] currently has U.S. Navy contracts for building four fleet oilers, in addition to a $500,000 contract for refitting the battleship U.S.S. Iowa, all of which should keep Avondale's workers employed.

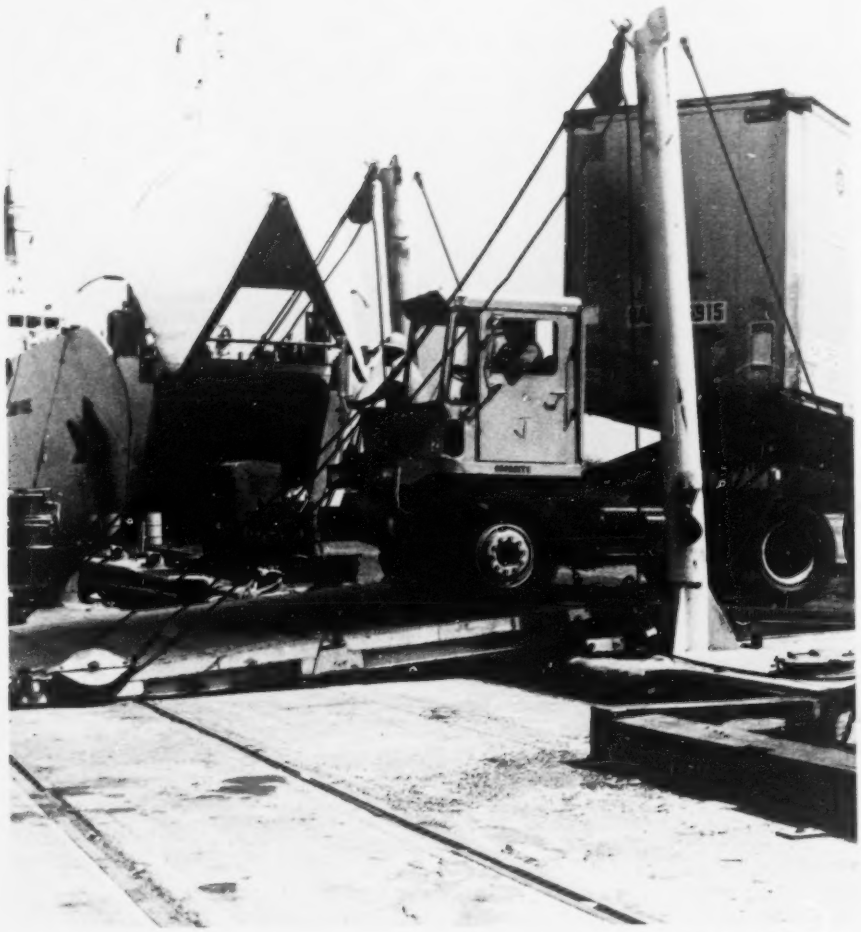
"The construction of merchant ships has been undergoing a steady decline, increased by the Reagan administration's announcement of its intention to cut back on construction subsidies to the builders, which will be certain to result in a halt to new ship construction here. Avondale's contract for three containerships for American President Lines may represent the last containerships to be built in the United States until construction development subsidies are renewed.

"Currently the Congress is considering a proposal to permit U.S. shipowners to build in other countries, should construction subsidies become unavailable, while still qualifying for U.S. operating subsidies through September 30, 1983. This would provide owners a chance to either build or modify merchant ships in foreign yards, while qualifying for taxpayer supports in the form of operating differential subsidies. These operating subsidies are vital to the industry. Last year, for instance, U.S.-flag liner carriers received some $295 million in such supports. Lykes Brothers Steamship Co., alone, received $84.9 million in federal subsidies.

"As I perceive it, the lack of expansion in the U.S. fleet is attributable to costs, federal regulation, and the expense of doing business in this country. United States' flag vessels not only operate with federal subsidies, but also in a trade market protected by the Jones Act, which requires that all ships operating in interstate commerce must be U.S.-built, -maintained, and -crewed. These construction and repair requirements give us a more expensive ship to operate, and as a result, we cannot compete in the internationally-tight market—there's just not that much cargo moving these days."

LBR: *Why do you think these federal subsidies have been maintained?*

LOZES: "I think we primarily keep the U.S.-flag vessels operating in order to have them available in the event of a national defense emergency where we would need a merchant fleet to carry supplies or products. We also subsidize the merchant fleet to keep the people in the U.S. Merchant Marine and the shipping industry employed,



Photograph courtesy of Port of New Orleans

RO RO—This container on a truck bed is being unloaded at the Port of New Orleans from a Roll-on Roll-off cargo vessel, one of the innovations of the containership boom.

and to keep U.S. shipyards operational. The point is, however, that the U.S. shipping industry is heavily supported by the government.

"Given the non-competitiveness of our shipbuilding industry, I don't believe anyone in the United States could get into the shipping business anymore. If you take into account construction costs of, say, $55 million for a 45,000-ton tanker, together with the debt service that would go to maintaining something like that, and the incredibly high costs of operation, aside from the fact you couldn't find employment for that vessel right now, you can see how difficult it would be to make a profit out of such a venture. The same thing is happening in Western Europe, and the accepted answer lies in 'flagging out.'"

LBR: *That's significant. What does the term "flagging out" mean?*

LOZES: "The meaning of the term 'flagging out,' or registering under a 'flag of convenience,' is not fully appreciated by the layman. Ships have the nationality of the country in which they are registered and whose flag they fly. Many owners register their vessels in foreign countries primarily for economic considerations. These owners are able to employ crews from such 'manning' nations (or 'convenience' countries) at a significant per diem cost-savings. Manning nations such as the Philippines, Taiwan, and Pakistan welcome the opportunity to employ their seamen on these vessels as a source of hard currency, usually U.S. dollars. The crew cost-savings permit an owner to be more competitive, and the risk of strikes or work stoppages is minimized, as is the astronomical expense of crew claims. There are also no requirements that vessels be built or repaired in any particular nation's yards."

LBR: *The cost of labor, as well as labor influence, then, are obviously important ingredients in determining the competitiveness of a shipowner's vessels. How have these labor factors and other operating expenses affected modern shipping, particularly in the West?*

LOZES: "The shipping fleets of the Western industrialized nations are fairly well regulated and under a strong labor influence. The size of these fleets also has been dwindling over the past decade, with owners electing to flag out some or all of their vessels to countries where there is less regulation and labor influence. It is impractical to try to determine exactly the current manning and pay scales for all of the European shipping nations, but, for example, a daily additional operating expense factor of $2000 would not be uncommon when evaluating similar-sized bulk carriers under Norwegian or West German flags, as compared to those registered in Liberia or Panama. Not all of the additional daily expense is attributable to crew costs, as other factors, such as insurance regulations requiring that construction and basic repairs be conducted in the flag nation, would add to the differential. The end result, however, is that as a general principle, from the standpoint of cost efficiency, the fleets of the Western industrialized nations are at a competitive disadvantage to the fleets based in the Far East or those which are registered in flag of convenience nations.

"Debt structure and currency fluctua-

Photographs by Joe Wagner

tions are also factors to be considered when evaluating the competitiveness of a vessel at any particular time. Those vessels with long-term financing at favorable rates will obviously have an advantage. Freight income is generally calculated and received in U.S. dollars, but debt service obligations may be payable in any of many foreign currencies depending upon the requirements of the lending institution. While hedging possibilities exist in short-term transactions, such as the sale of full cargoes from the date of shipment to the date of delivery, the freight income in dollars and the debt service in, let's say, deutsch marks, over a protracted multi-year period, compounds the hedging difficulties and increases the cost in an already cost-conscious industry."

LBR: *How heavily organized is the merchant shipping industry?*

LOZES: "The U.S.-flag ocean-going vessels, to my knowledge, are all unionized—the Seafarers International, the National Maritime Union, the Marine Engineers Benevolent Association—in other words, all of the longshoremen are members of various unions. Remarkably, by comparison there is very little brownwater unionization among those who work on the tugboats in the Mississippi River, bayou trade, and offshore supply industry.

"On the international scene, the significant labor union is the International Transportation Federation Workers Union (ITF), which is based primarily in Western Europe and includes longshoremen and other industry personnel, as well as crewmen. The ITF is engaged in a rather extensive and successful campaign to have owners of flag of convenience vessels register their ships as ITF carriers and pay their crews under the ITF scale.

"I was in Taiwan recently, and met with some of the China Seamen's Union officials. They guard their employment with owners quite carefully, which basically, I think, represents a conflict of interest. While the ITF is seeking to increase seamen's *wages*, the China Seamen's Union and the National Union of the Philippines, for example, are seeking *employment* for all of their maritime industry members, so certain concessions will be made by those national unions. Those owners who have valid contracts with foreign seamen's unions will not find their vessels locked out in an ITF-based port. Those that don't have any real firm agreement for manning under the pay scales of Taiwan, the Philippines, or even the Greek collective bargaining agreement, may face lockouts, particularly if they have an ITF contract and they are not paying according to the union's scale.

"What are these union pressures doing to the costs of operating vessels? Obviously, encouraging the manning of vessels through the seamen's unions in the Orient, where owners don't have the problems and costs associated with unions in the West."

LBR: *Do you mean to say that the seamen's unions in the Orient are more concerned about* employment security, *then, than simply wages?*

LOZES: "Yes, and I think it's smart. The question is, is it better to have one person employed at $20 an hour, or is it better to have two at $10, or four at $5? I think that's what we are seeing with the current lay ups in the U.S. fleet, with our unemployed longshoremen, and with less work in our shipyards. Those who are working, I believe, are making very comfortable livings; but, is that better than having twice as many people working for half the amount? Someone other than myself needs to address that question.

"Organized labor should have an interest in looking at this situation closely, as should the U.S.-flag shipowners, the shipyards, and anyone else connected with the industry. All of them have a vested interest in it, and that, on the other hand, may be the problem. I guess a U.S. shipyard would have a vested interest in having U.S.-flag ships being required to be built in the United States, while a U.S.-flag owner would prefer to have his ships be built abroad, at a lesser initial cost. As I see it, it is not unlike the automobile industry which seems to be undergoing a similar phenomenon. You can get to the point where nobody wins."

LBR: *What you are implying, then, is that labor and management need to get together for long-range planning?*

LOZES: "Labor, management, *and* the U.S. Maritime Administration. I can't overemphasize the role the Maritime Administration plays in the shipping industry. This is a highly regulated and subsidized industry, and I feel the three entities of government, management, and labor will have to look at these problems, and *soon.* It is not unusual for the average vessel in a U.S. fleet to have an age of fifteen to sixteen years. Our ships are going to have to be replaced. So, someone is going to have to start looking at this thing closely."

LBR: *Are there any other factors contributing to the decline in world shipping that you would like to mention?*

LOZES: "Yes, there are several factors resulting from the international economic situation that should be considered. For example, contributing to the decline in world shipping is a drop in bulk-product freight rates and a significant over-supply of hulls available for the service. Part of the reason for this over-supply is that many owners' vessels were constructed with the capability of carrying both petroleum and grain products. These vessels had a greater original construction cost, but could participate in the importation of petroleum products to the United States and exportation of grain products on the return voyages, thus eliminating a ballast or non-income producing leg. With the decline in petroleum production and transportation rates, many owners of these combination vessels pulled out of the oil trade and entered the bulk grain market creating an oversupply there as well. Then the general world recession and the cutbacks in petroleum product transportation caused many tankers, grain carriers, and combination vessels to become idle.

"It had been speculated that the anticipated increase in coal exports from the United States would have occupied some of the excess bulk tonnage, but the rate of increase in coal exports has been less than expected. Many newly constructed large tankers have proceeded directly from shipyards into lay up or even to the ship breakers in the Far East for scrapping.

"While we have been talking generally about bluewater shipping, this decline in both U.S. and international shipping has really affected us locally. The barge fleets on the Mississippi River are all tied up, neither transporting coal nor grain. The tugboats are generally out of work, and most offshore supply vessels are laid up. This is affecting our domestic brownwater business significantly."

LBR: *Specifically, where and how have the effects of the shipping decline been felt in Louisiana?*

LOZES: "Generally, the decline is hurting the Port of New Orleans. Some of the New Orleans-based carriers have 20 to 30 percent of their fleets tied up because there is no cargo, and, consequently, that means 20 to 30 percent of the merchant seamen are unemployed. It also means there has been a decline in the availability of longshoremen's jobs. So, I think we are being affected—the tugboats, the shiphandlers, the service vessels, the shipchandlers, and anyone else who has an interest in the continued movement of vessels through this port, has to be affected by the decline in volume and numbers."

LBR: *Wrapping everything up, what is your forecast for the international shipping industry?*

LOZES: "The United States merchant fleet has fallen on hard times. We have one of the highest operating cost factors of any nation. The U.S. shipping community relies heavily on government subsidies for the construction and operation of its vessels, and for assistance in maintaining its share of the market. Legislation is in force which prohibits non-U.S.flag tankers from transporting petroleum products in interstate commerce, including the movement of oil from Alaska to the refineries on the West and Gulf coasts. Government cargoes are carried almost exclusively on U.S.-flag carriers, and when significant sales of grain are negotiated, requirements for U.S.-flag fleet participation are necessary. Significant repairs to U.S.-flag vessels are expected to be carried out in U.S. yards, unless emergencies arise.

"Much of the same is experienced in European countries, with a resulting decline in the sizes of the national fleets both here and in Europe. What is gradually becoming apparent is that there is a shift in the operation and ownership of significant percentages of the world fleets to the money market centers of the Far East. There are presently significant shipowning interests based in Hong Kong, Singapore, Taiwan, and Japan, and they are growing rapidly.

"In 1981, the United States had a liner fleet of 255 vessels with an average age of 13.7 years, and a dry and liquid bulk fleet of 296 vessels. Many vessels in the latter category, however, are foreign-owned, but under charter to U.S. oil companies. By comparison, the owned and chartered fleet of one Japanese operator, the Sanko Steamship Co., Ltd., exceeded 300 vessels at last count, and the total Japanese merchant fleet of general cargo, dry, and liquid bulk carriers exceeded 5,400 ships and 38 million gross register tons (grt). The fleet controlled by the Hong Kong Shipowners Association now exceeds 1,500 vessels and 30 million grt. Furthermore, the major shipbuilding yards of Japan, Taiwan, and South Korea produced more than 50 percent of the world's new construction merchant tonnage in 1980.

"The United States' shipowning and shipbuilding industries are not competitive in world markets. They survive on government construction and operation subsidies, as well as protectionist legislation. The merchant fleet is aging, and operative costs are escalating. A comprehensive reevaluation of the merchant marine policy of this country is needed soon, if the industry is to survive."

JOE WAGNER, the newest addition to the Review *editorial staff and an award-winning writer-photographer, is pursuing a doctoral degree in American history at Louisiana State University, Baton Rouge. His work has appeared in numerous national and international publications.* □

Paul Hribernick

FORUM

Environmental Regulation in Louisiana, Assessing A Record of Limited Success

EDITOR'S NOTE: FORUM *is designed to stimulate public discussion of timely economic and related topics by providing the opportunity for readers to respond to articles published in the* LBR *with supplementary or contrasting material, as well as for authors of articles appearing in previous issues of the* LBR *to update or modify their analyses. As such, the views and opinions published in this column are those of the individual* FORUM *authors themselves, and do not necessarily represent those of the* LBR *Editorial Board or Louisiana State University.*

Wherever the subject of environmental regulation is discussed, there is a predictable deposition of two polarized viewpoints: (1) the view of the regulated, that the existing environmental laws are inflexible and overly harsh, and (2) the view of the environmentalists, that the existing laws are inadequate and poorly enforced. Despite such adversarial rumblings, it is not unreasonable to suspect that the truth generally lies somewhere between these two positions.

In the Winter 1982 issue of this *Review,* chemical industry spokesman Fred Loy attempts to rebut the findings of a recent study which suggest that most executives of foreign firms in Louisiana perceive that the state's environmental regulations are of questionable intensity.[1] Loy's thesis is that the modernity of Louisiana's factories, the imposition of high fines on violators, and the existence of impressive lists of environmental statutes combine to conclusively demonstrate the locked-tight nature of environmental management in the state. His article presents an interesting dialectic, but does little to answer the question of whether or not Louisiana has a *comprehensive* environmental regulatory regime, or the more important question of whether the statutory regime in existence is being enforced in a manner that maximizes pollution reduction. Just as subjective opinions on the relative strictness of environmental controls do not conclusively demonstrate objective weakness in Louisiana's environmental administration without further documentation, neither do claims of plant modernity, bald dollar-figure examples of fines imposed, nor lists of statutes indicate a "tough" environmental position on the part of Louisiana without further information.

MODERN FACTORIES?

Many of Louisiana's industrial facilities are entering their third decade, and virtually all were constructed before 1979 when Louisiana enacted its comprehensive Environmental Affairs Act.[2] The age of a manufacturing facility is not the determining factor in the effectiveness of pollution control, however. Rather, it is the strength and comprehensiveness of environmental legislation, the zeal with which goals of environmental statutes are enforced, and the care with which environmental regulations are followed by corporate management, which emerge as the limiting factors in any environmental control regime.

HIGH FINES?

The dollar amounts of fines alone are a poor indication of the strength of an environmental regulatory program, as well as of the degree of corporate compliance with such a program. While the levying of fines indicates that corporate compliance may be imperfect and that enforcement efforts may enjoy some measure of success, such actions do little to illuminate the qualitative nature of industrial lapses or regulatory responses. In an environmental context, fines designed as deterrents can

only be effective if they offset any gain that could be achieved by violating pollution laws.

To use a recent example, the fact that the Georgia-Pacific Corporation was fined $308,000 for its phenol discharges into the Mississippi River in February 1981 does not inescapably lead to the conclusion that Louisiana's pollution laws are powerful deterrents. When one considers that Georgia-Pacific discharged more phenol in four days than its federal permit legally allows the firm to discharge in twelve and one-half years,[3] the deterrent effect of the statute is called into question. Furthermore, without knowing what costs to a particular enterprise are avoided when it discharges untreated pollutants, it is impossible to judge whether a fine has any negative economic effect on the polluting company. In Georgia-Pacific's case, the firm's lack of back-up control technology and additional pond-storage capacity contributed to the spill's occurrence. If a corporation can avoid or delay capital outlays for pollution control equipment by paying a fine, even a substantial fine, it may make a wise economic decision in *not* building control technology.

This situation has come to the attention of the Louisiana legislature which considered two bills in its recent legislative session designed to adjust the fine schedule upward if an industry is realizing an economic gain by discharging more pollutants than its legal permit allows.[4] Such legislative efforts emanate from the realization that it is too simplistic to conclude that large fines automatically indicate good environmental protection.

ENVIRONMENTAL CONTROL IN LOUISIANA

The Louisiana Environmental Affairs Act (LEAA) prescribes broad-brush guidelines for the control of air, water, and hazardous waste pollutants. Administratively, the provisions of the LEAA are to be carried out by the Office of Environmental Affairs (CEA) within the state's Department of Natural Resources. Rule-making authority under the LEAA is delegated to the Environmental Control Commission (ECC), a regulatory body within the Department of Natural Resources which is mandated to make known the specific regulations which apply to individual pollutants. In addition, the ECC is empowered to conduct fact-finding and decision-making hearings for issuing certain types of permits and laying the groundwork for enforcement actions (including the levying of fines).

In the abstract, the statute, regulations, and commission would seem to present a potent structure for environmental regulation. But before any conclusion is reached, it is necessary to analyze three factors which critically affect the soundness of this environmental control regime: (1) the comprehensiveness of the enabling statute and resulting regulations, (2) the enforcement capability of the agencies administering the program, and (3) the integrity of the supervising commission.

Comprehensiveness of the Regulatory Regime

Relative to programs in other states, the Louisiana regulatory framework for air, water, and hazardous waste pollutants is a comprehensive one, reflecting that considerable thought and effort have gone into its formulation. Two examples, however, serve to illustrate that there are large inadequacies in what Louisiana Chemical Association representative Fred Loy describes as some of the "toughest environmental laws in the nation."

The portion of the LEAA that pertains to air pollution control requires the ECC to develop regulations for all *sources* of air contaminants in the state. However, the regulations fail to control all *types* of air contaminants. The LEAA provides that the Environmental Control Commission may assume the administration of the National Emission Standards for Hazardous Air Pollutants Program currently under the U.S. Environmental Protection Agency (EPA), and thereby regulate toxic and hazardous wastes emitted into the air. To date, no regulations for hazardous air pollutants have been issued by the ECC for Louisiana. Therefore, under the state's existing regulatory regime, hazardous wastes may be emitted into the air without regard to qualitative factors as long as the quantitative regulations pertaining to process weight and suspended particulates are followed.[5] The lack of state regulations for hazardous air pollutants represents a serious qualitative omission in Louisiana's pollution control regime.

A similar lapse in the LEAA structure exists in the hazardous waste control program. The regulations of this program set meticulous standards for businesses that generate, transport, and dispose of hazardous wastes. These standards, however, are undermined to a large extent by the definition of "waste" in the law. Waste is defined in the LEAA as "any material for which no use or reuse is intended and which is to be discarded." This definition places any material (without regard to its toxicity) outside the regulatory framework if it is subjectively intended for reuse. While this nuance may appear to be merely a problem of semantics to some, it represents a major loophole in the law. A Department of Natural Resources' inter-divisional memo succinctly summarizes the problem: "There are currently no state or federal regulations limiting the types of materials which can be incorporated into reclaimed fuel oil. . . . In spite of the often toxic, corrosive or flammable nature of these materials, they remain exempt from the hazardous waste permit requirements and manifest system."[6]

Enforcement Capability

A regulatory program's ability to achieve the goals established by the legislature depends to a great extent on the enforcement provisions of the law and the capability of the supervising agency in implementing those provisions. The LEAA has a large arsenal of enforcement mechanisms, but, unfortunately, the administrative staffs charged with monitoring and enforcing the statute are critically short on personnel.

Inadequacies in the size of the staff

in the Air Quality Div sion, one of five divisions within Louisiana's Office of Environmental Affairs, became apparent early in 1980 when an EPA report pointed to staffing deficiencies of the OEA. Staff size in the Air Quality Division has increased in the past year, but the twenty-nine monitoring employees are still far fewer than the number needed to enforce air quality standards, according to an assistant secretary in the Department of Natural Resources.[7] If the ECC ever establishes a hazardous air pollution program, as it has been authorized to do by the LEAA, present staff levels in the Air Quality Division will be even more inadequate.

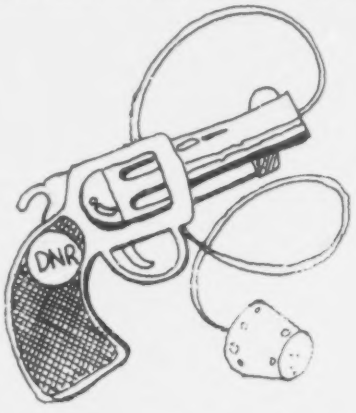
A December 1981 report to Governor Treen indicates that similar enforcement deficiencies exist in the Water Pollution Control Division of the OEA. The report details the division's inability to pinpoint exceptionally large discharges of 1, 2-dichloroethane over a period of one year (September 1980- September 1981) and concludes that "the situation discussed in this report has occurred largely because the Department of Natural Resources has not had adequate staff or laboratory facilities to ensure compliance with discharge permit conditions or to detect illegal discharges into the Mississippi River."[8]

The Hazardous Waste Division of the OEA has serious staffing problems, as well. Only approximately 60 percent of the division's allocated and requested technical staff is actually on hand and working. Consequently, the Hazardous Waste Division has only eleven field investigators and five engineering and chemical support staff members to monitor over 500 hazardous waste generators, numerous disposal facilities, and abandoned hazardous waste sites, as well as to respond to emergency spills.

Integrity of the Environmental Control Commission

An analysis of Louisiana's pollution control regime would not be complete without an examination of the practicability of the Environmental Control Commission (ECC) in carrying out its legislative mandate. If the commission were to seriously pursue its charge to maintain "a healthful and safe environment for the people of Louisiana," it could be a powerful watchdog in ensuring that industrial development in the state occur only in a environmentally sound manner. Unfortunately, the commission has yet to shoulder its burden well in all cases.

The saga of Sheffield Petroleum Services, Inc., provides one inauspicious example of poor ECC performance.[9] After a long history of environmental violations, Sheffield was given an oral consent order by the commission in May 1981. In the order, Sheffield was required to admit to multiple environmental violations, agree to pay a fine, arrange to have a professional engineer prepare a plan to close its operation, provide a fund for closure of the site, and complete cleanup activities by September 21, 1981 or have the site declared to be abandoned and closed by the state. Nearly a year later, and well after the September 1981 deadline it had imposed, the ECC issued air and water discharge permits to Sheffield after the company paid all its outstanding fines.



In this instance, a violator was able to delay payment of fines and postpone cleanup activities for nearly a year. Furthermore, because Sheffield was not required to secure a hazardous waste permit, involvement of the ECC seems to have changed Sheffield's status under the environmental regulation.[10] The ECC's actions in this case resulted in a substantial time delay for enforcement procedures and a qualitative reduction in regulatory control.

Other ECC actions have been highly criticized. The settlement reached between the ECC and Rollins Environmental Services regarding the latter's waste disposal operations north of Baton Rouge have been denounced as setting a bad precedent for environmental enforcement practices and acceptable disposal methods.[11] More recently, Louisiana's attorney general, who serves as counsel for the ECC, has chastised the commission for its leniency in determining the amount of fines for pollution violations of the Good Hope Refinery in Good Hope.[12]

Two bills passed by the 1982 state legislature and signed into law by Governor Treen are aimed at such lethargic enforcement efforts by the ECC. Act 379 of 1982, originally proposed by Senator Nunez of Chalmette, requires that the ECC address violations in a "formal and consistent manner" with due deference paid to compliance deadlines. Act 671 of 1982, also proposed by Senator Nunez, requires the ECC to consider an applicant's history of violations before a permit and either a variance or compliance schedule are agreed upon. These pieces of legislation reflect the legislature's displeasure with ECC's handling of certain enforcement actions brought before the commission.

OTHER ENVIRONMENTAL REGULATORY PROGRAMS

Similar regulatory problems are experienced with the state's efforts to manage its coastal wetlands which are critically important to fisheries production. A report from the Federal Office of Coastal Zone Management details three major deficiencies in the Louisiana Coastal Resources Program: (1) inadequate staff, (2) lack of monitoring and enforcement, and (3) lack of coherent policy in hearing appeals by the Coastal Commission.[13]

The Louisiana Coastal Resources Program consists of a coastal activity permitting agency—the Coastal

Management Section (CMS)—and a permit appeal body—the Louisiana Coastal Commission—, both housed within the Department of Natural Resources. The Coastal Management Section has a staff of only seven to deal with over 2,000 annual permit applications for conducting various activities in the state's coastal zone.

The enforcement capability of CMS is limited by its small number of personnel and the statutorily mandated maximum fine of $500 which it can issue. Furthermore, the secretary of Louisiana's Department of Natural Resources, who is charged with the enforcement responsibility for the CMS, has yet to issue a cease and desist order; suspend, revoke or modify a permit; or pursue judicial action either stopping an activity or passing on the legality of an activity, as he is authorized to do under the statute. This lean enforcement record stands in contrast to the findings of a one-year pilot monitoring program which revealed that up to one-half of all projects initiated in Louisiana's coastal zone may be in violation of their permit conditions.[14]

The third criticism leveled by federal authorities is that the Coastal Commission does not properly function in its intended capacity as an appeals body. Indeed, the commission's first act after federal approval of the state management program was to declare that it had no jurisdiction to hear two appeals that had been filed before it.[15] When the politically appointed commission chose to sidestep its first appeals, one national publication noted that in Louisiana, wetlands protection "is a political problem first and an organizational and procedural problem only after the political problem has been resolved."[16] The effectiveness of the commission is further hampered by the lack of interest among some members of the commission. Chairman Gerald Bordelon recently released figures which show average commission attendance at only 40 percent. Like the Environmental Control Commission (its counterpart in the regulation of air, water, and hazardous waste matters), the Coastal Commission is the keystone around which the regulatory program is built. If either commission fails to shoulder its respective duties, the regulatory regime is rendered ineffective.

CONCLUSION

Despite a bright picture painted by the chemical industry, Louisiana's environmental controls are far from perfect. Equivocal statutes, extreme staff shortages, enforcement and monitoring deficiencies, as well as lackadaisical efforts by the commissions charged with various oversight functions, result in less than optimum environmental protection for the citizens of the state. It would be a gross distortion to ignore the historical proportions of the progress that Louisiana has made toward protecting the environment. Nonetheless, it is an equally grevious mistake to assume that the job is done and state officials may now rest on their laurels.

On close examination it is clear that the vignette of clean and efficient factories, offered by regulated industries, and that of continued environmental degradation, offered by the environmental community, are component parts of the same, but much larger and more complex, reality. It is equally clear that the job to protect and restore the environment is just beginning. There can be little doubt that the regulatory regime presently in place in Louisiana is a good start. With a legislative pledge to enact more comprehensive statutes and regulations, a dedicated administrative effort toward staff development, and a continuation in the shift of attitude and commitment on the part of the regulators and the regulated toward protecting the environment, Louisiana may someday obtain an environmental control regime worthy of boast.

[1]Fred Loy, "Louisiana's Environmental Policy, Setting the Record Straight," FORUM article, *Louisiana Business Review* 46 (Winter 1982): 12-13.

[2]Statistics compiled by the Louisiana Department of Commerce include chemical factories (with 50 or more employees) built as early as 1909 and as late as 1979. Most of Louisiana's chemical manufacturing facilities were built in the 1950s and 1960s, and are now between 20 and 30 years old. See: Louisiana, Department of Commerce, *1981 Directory of Louisiana Manufacturers*, (Baton Rouge, 1981). Note: These figures do not take into account factory expansions or modernization projects.

[3]Georgia-Pacific's National Pollutant Discharge Elimination System Permit (NPDES #LA 007129 effective May 19, 1977 as revised and reissued October 16, 1978) allows . . . a 10 lb. daily average (calculated monthly) discharge of phenol, or 3,650 lbs. per year. In any given day, Georgia-Pacific may discharge a maximum of 26 lbs. of phenol, but the daily average must be equal to or less than 10 lbs. The Environmental Control Commission's "Findings and Order and the Stipulated Facts" indicates that during the four days in question, Georgia-Pacific discharged 45,768 lbs. of phenol through their stormwater outfall, and an additional 52 lbs. of phenol through their biological outfall, for a total four-day discharge of 45,820 lbs. Dividing this total discharge of phenol by the 3,650 lbs. per year allowed by the EPA yields a twelve and one-half year equivalent allowable discharge of phenol for the four-day period in question.

[4]House Bill 1471 of the 1982 Regular Session, authored by Representative Ullo, would have raised the maximum *civil* penalty for illegal pollutant discharges to $50,000 per day (up from $25,000). The bill would have specifically required that "the economic benefit gained by the violator . . . be considered when levying the penalty." Additionally, House Bill 363, authored by Representative Fernandez and designed to increase *criminal* penalties for discharges, was approved by the legislature and became Act 146 of 1982.

[5]Louisiana air control regulations limit the total suspended particulates an industry may emit. Similarly, limits are set on raw amounts of emissions, based on the process weight of an industry. For example, a process which produces 1,000 lbs. per hour may give off up to 2½ lbs. of emissions per hour. There are no qualitative restrictions placed on such emissions.

[6]Louisiana, Department of Natural Resources, Office of Environmental Affairs, Air Quality Division, Inter-Divisional Memo, *Sheffield Petroleum Services*, Clelie Carpenter to Gustave Von Bodungen, 4 June 1981, p. 2.

[7]See: Hatfield, "Doubling of Air Quality Staff Urged," *Baton Rouge Morning Advocate*, 6 February 1980; Fryer, "Report Called Misleading on Air Quality Program," *Baton Rouge Morning Advocate*, 15 April 1980; and "Industrialists Breathe, Too," editorial, *Baton Rouge Morning Advocate*, 12 May 1981.

[8]Louisiana, Department of Natural Resources, Office of Environmental Affairs, Water Pollution Control Division, *A Report to Governor David C. Treen on the Occurrence of 1, 2-Dichoroethane [ELD] in the Mississippi River for the Period from September 1980 to*

FORUM (cont'd)

September 1981, (Baton Rouge, 1 December 1981).

[9]The sequence of events in the Sheffield case is detailed in a letter from Attorney General William Guste, Jr. to the Environmental Control Commission, dated 21 October 1981.

[10]The Office of Environmental Affairs originally determined that Sheffield needed to comply with hazardous waste regulations to continue operations. Sheffield was issued an interim hazardous waste permit in October 1980 and was subsequently issued two notices of violation for failure to comply with hazardous waste rules.

[11]See: "Hazardous Concessions," editorial, *New Orleans Times-Picayune*, 14 June 1980; and "Guste Leery of Rollins Settlement," *Baton Rouge Morning Advocate*, 12 June 1981.

[12]The attorney general contends that the $260,500 fine was not sufficient for the 311 environmental violations charged against the Good Hope Refinery operations. See "Guste Letter Keeps Up Spat With Simoneaux," *Baton Rouge Morning Advocate*, 28 May 1982.

[13]U.S., Department of Commerce, National Oceanic and Atmospheric Administration, *Evaluation Finding for the Louisiana Coastal Resources Program for the Period from October 1980 Through November 1981*, (Washington, D.C., 5 April 1982).

[14]*Ibid.*, p. 5.

[15]Recent events further illustrate the Coastal Commission's recalcitrance. For example, on June 7, 1982, the state District Court for the 32rd Judicial District ordered the commission to hear one of the appeals it had earlier refused to consider. Rather than follow the court's order and hear the appeal, the commission decided on June 17 to appeal the court's decision to a higher authority.

[16]Environmental Law Institute, *National Wetlands Newsletter* (1, 1982): 7.

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RESEARCH NOTES

Louisiana Shallow-Water Ports Data Bank Completed

Readily accessible information on Louisiana's shallow-water ports is now available, reports Harvey Smith, director for the year-long project funded by the Louisiana State Board of Regents to develop a data bank and information system for the planning and management of the state's dozens of inland ports along the Mississippi River.

The project, a joint effort of LSU's Economic Development Center and the Center for Wetland Resources, has created the first computerized data base which contains information on the characteristics, facilities, and commerce of shallow-water ports in Louisiana. Data bases for the state's larger ports (i.e., New Orleans, Baton Rouge, and Lake Charles) have been compiled by both the U.S. Army Corps of Engineers and the Federal Maritime Administration.

In the final report for the project entitled *A Greatly Expanded Information System to Strengthen the Successful Management, Promotion and Forward Planning of Louisiana Inland River Ports*, Smith explains that the current information file, which will need to be updated and expanded periodically, is based on four data sets containing: (1) information on some of the physical characteristics of each port; (2) tabulations of U.S. geograpnical areas in Louisiana during 1980; (3) the results of a survey of port managers to determine the types of commodities currently moving through each port, and the potential role of each commodity in port business during the next five years; and (4) 145 bibliographic references to information on shallow-water ports in Louisiana.

This new data bank is available for use by researchers seeking information on the characteristics and facilities of shallow-water ports in Louisiana, and can be accessed through the Center for Wetland Resources at LSU, Baton Rouge. Copies of the final report for the project may be obtained at cost by contacting: Director, LSU System Economic Development Center, 3139 CEBA, LSU, Baton Rouge, LA 70803, telephone (504) 388-6282.

Inservice Training for Teaching Economics Effective

In 1977, the Louisiana legislature passed Act 83, requiring all of the state's public high school students to take a course in free enterprise as a prerequisite for graduation. A recent study by Howard M. Schober, executive director of the Louisiana Council on Economic Education (LCEE) at Louisiana State University, Baton Rouge, examined the impact of the LCEE's statewide series of economics in-service training programs on participating teachers, and their students, in the subsequent free enterprise classes that they taught.

Schober surveyed a random sample of 250 teachers throughout Louisiana who had participated in seven of the LCEE's in-service training programs during the summer of 1981. The results of the study are based on a comparison of teacher responses to a set of questions designed to measure their economic achievement and opinions.

Based on his study, Schober concluded that providing economics training for Louisiana's teachers improves the effectiveness of the state's required public high school free enterprise courses. His findings revealed that the LCEE teaching training programs had a significant impact on the economic achievements and opinions of both the teachers who participated in the 1981 programs, and the students enrolled in their free enterprise classes the following year. □

IN APPRECIATION

The **Louisiana Business Review**, a quarterly publication of the Division of Research in the College of Business Administration at Louisiana State University, is dedicated to providing worthwhile and timely information on local, state and national economic developments of interest to members of the Louisiana business and government communities. This objective is being achieved by presenting high quality, readable articles written by knowledgeable representatives from business, government and academia. The Division would like to express its sincere appreciation to the following companies whose valuable contributions have made this publication possible.

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